

ORIGINAL



Henrico and New Kent Counties, Virginia



REQUEST FOR PROPOSALS

Letter of Submittal and Attachments

SUBMITTED | JUNE 20, 2017

A DESIGN-BUILD PROJECT

I-64 Widening Exit 200 to 205

From: Interstate 295

To: Exit 205 (Bottoms Bridge)



State Project No.: 0064-043-602
Federal Project No.: NHPP-064-3 (499)
Contract ID Number: C00107458DB95

SUBMITTED BY



A JOINT VENTURE





A JOINT VENTURE

June 20, 2017

Mr. Joseph A. Clarke, PE
Virginia Department of Transportation
1401 East Broad Street
Annex Building, 8th Floor
Richmond, VA 23219

RE: Letter of Submittal | Design-Build | I-64 Widening Exit 200 to 205 | Henrico and New Kent Counties, Virginia | State Project No.: 0064-043-602 | Federal Project No.: NHPP-064-3 (499) Contract ID Number: C00107458DB95

Dear Mr. Clarke:

- 4.1.1 Full legal name and address of the Offeror** | Corman-Branch, a Joint Venture (Corman-Branch JV) JV084, 442 Rutherford Avenue, NE, Roanoke, VA 24016, a joint venture between Corman Construction, Inc. and Branch Civil, Inc., is the legal entity who will execute the contract with VDOT.
- 4.1.2 Offeror's intent to enter into a contract with VDOT** | Corman-Branch, a Joint Venture (Corman-Branch JV), if selected, will enter into a contract with VDOT for the Project in accordance with the terms of this RFP.
- 4.1.3 Offer will remain in full force and effect for one hundred twenty (120) days** | Pursuant to Part 1, Section 8.2, Corman-Branch, a Joint Venture (Corman-Branch JV), declares that the offer represented by the Proposal will remain in full force and effect for one hundred twenty (120) days after the date the Letter of Submittal and Attachments are actually submitted to VDOT ("Letter of Submittal and Attachments Due Date").
- 4.1.4 Point of Contact for the Offeror** | Jo Ellen Sines, DBIA, Vice President, Project Development
Corman | 12001 Guilford Road Annapolis Junction, MD 20701
Tel | 301.343.5484 Fax | 301.953.0384
Email: jsines@cormanconstruction.com
- 4.1.5 Principal Officer for the Offeror** | Arthur C. Cox, III, Vice President
Corman | 12001 Guilford Road Annapolis Junction, MD 20701
Tel | 410.792.9400 Email | ccox@cormanconstruction.com
- 4.1.6 Final Completion Date** | Final Completion | August 22, 2019
- 4.1.7 Executed Proposal Payment Agreement** | An executed copy of Attachment 9.3.1 Proposal Payment Agreement form is included in Appendix, Attachment 9.3.1 Proposal Payment Agreement.
- 4.1.8 Certification Regarding Debarment Forms** | Executed copies of the Certification Regarding Debarment Forms as set forth in Part 1, Section 11.8.6 are provided in Appendix, Attachment 11.8.6 (a) and (b) Certification Regarding Debarment Forms.
- 4.1.9 DBE Participation Goal** | Corman-Branch, a Joint Venture (Corman-Branch JV), is committed to achieving a ten percent (10%) DBE participation goal for the entire value of the contract.

Sincerely,

CORMAN CONSTRUCTION, INC.



Arthur C. Cox, III, Vice President

BRANCH CIVIL, INC.



Patrick K. Bartorillo, President

4.2 | Attachments to the Letter of Submittal



4.2.1 | Confirmation of Organizational Chart and Key Personnel Contained in SOQ



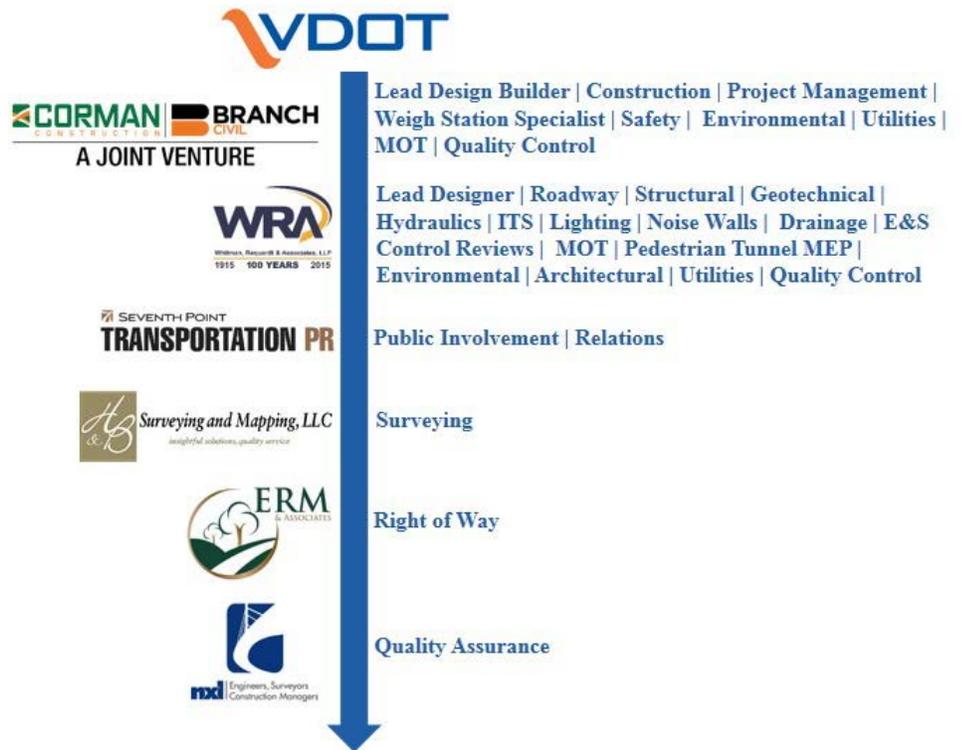


4.2.1 CONFIRMATION OF ORG CHART AND KEY PERSONNEL

The Corman-Branch JV confirms that the information contained in our SOQ submittal pertaining to the Organizational Chart and the Key Personnel remains true and accurate, to include the following changes:

On January 1, 2017, Branch Highways, Inc. and its wholly owned subsidiary, E.V. Williams, Inc., consolidated to form one entity, Branch Civil, Inc. In reflection, the team name has been updated to Corman-Branch, a Joint Venture (Corman-Branch JV). The full team name to include the Lead Designer is Corman-Branch | WRA Team. The organizational chart, as well as any team name references have been updated in our Request for Proposals submittal to VDOT.

With a combined Design-Build portfolio of over \$1.9 billion, Corman Construction, Inc. (Corman) and Branch Civil, Inc. (Branch) have teamed together to form Corman-Branch, a Joint Venture (Corman-Branch JV). Together, we come to VDOT with the hands-on experience and accomplished personnel it takes to execute the design, construction, and manage the risks of the I-64 Widening Exit 200 to 205 Design-Build project. Our two firms have an established history of working together. Corman and Branch have joined forces on other roadway projects in Virginia:



1. VDOT’s Design-Build Military Highway Continuous Flow Intersection (CFI) which is Virginia’s first CFI and reconstructs 3.6 miles of roadway in Norfolk at a contract cost of \$60 Million.
2. VDOT’s Route 17 widening project which widens 2.8 miles of Route 17 from four to six lanes in Newport News to relieve today’s 37,000 ADT and prepares for the future forecasted 59,000 ADT, including a new bridge over the Polquoson River costing \$25.2 Million.
3. Reconstructed the Tidewater Drive and Little Creek Intersection for the City of Norfolk, including roadway and bridge construction totaling \$6 Million.
4. Median expansion of I-64 from J. Clyde Morris Boulevard to Hampton Roads Center Parkway in Newport News, including demolition and reconstruction of the Harpersville Road Bridge over I-64 costing \$25 Million.



Through the years, Corman and Branch have built a solid reputation of strategically aligning with the design-build partners that meet project needs and requirements. For this project, the Corman-Branch JV selected Whitman, Requardt & Associates, LLP (WRA) as the Lead Designer who has over a century of experience, including delivering successful projects with both JV partners. They are currently teamed with Corman on VDOT’s Design-Build Fall Hill Avenue project as the Lead Designer and Design-Build Route 29 Solutions as the engineer leading the Berkmar Drive Extension element where they are working with Ryan Gorman, our proposed Design/Construction Integrator. Corman and WRA are partners on three other Design-Build projects in the Hampton Roads and Washington, DC areas with a combined value of \$95 Million. WRA also developed the 30% design bridging documents for VDOT’s I-64/Route 15 Zion Crossroads Diverging Diamond Interchange (DDI) project where Corman was the Design-Builder and WRA developed preliminary plans and reviewed final plans submitted by the Corman Design-Build Team.

WRA also has fostered a strong working relationship with NXL Construction Services—the team’s Quality Assurance firm having teaming together on VDOT CEI contracts for years. The Corman-Branch | WRA Team delivers projects with seasoned professionals and resources, providing the highest quality to ensure that the project will be complete within budget and schedule.

Together, we are positioned to provide significant safety and operation improvements to the corridor.

3.3.1 Key Personnel: The Corman-Branch | WRA Team has assembled highly-qualified and experienced individuals and structured them for optimal performance. Our key staff and design firms come together with a shared history of successful projects and established working relationships. This established teaming will minimize VDOT’s risks and staffing requirements. Although our task leaders and technical staff are responsible for items, such as design, public involvement, and construction, everyone is responsible for project success. Table 1 below introduces our Key Personnel with resumes in the Appendix (Attachment 3.3.1). *Please note that our Key Personnel are all full-time employees in their respective firms displayed on our Organizational Chart on Page 8 at the time of submitting this Statement of Qualifications and that there are no embedded employees within VDOT.*

.1 Design-Build Project Manager (DBPM)	Jo Ellen Sines, DBIA
.2 Quality Assurance Manager (QAM)	Michael Saunders, PE, CCM, DBIA
.3 Design Manager (DM)	Michael Russell, PE
.4 Construction Manager (CM)	Kyle Kern

Table 1: Key Personnel

Value-Added Staff: *In addition to the above key personnel, the Corman-Branch | WRA Team appoints the following value-added staff to deliver a quality project on time and on budget.  symbolizes having Design-Build experience:*

 **Deputy Design Manager | Lead Roadway Engineer:** **Gail Kuttesch, PE (WRA)** with 12 years’ experience in designing interchange and roadway projects. *Gail filled these same positions for the design of the Design-Build Fall Hill Avenue project for the Corman/WRA Design-Build Team.* She



will report to and assist the Design Manager in coordinating the design discipline's efforts and ensure work is in accordance with the design QA/QC requirements. As Lead Roadway Engineer, Gail will draw on her Design-Build experience working with Corman to deliver the team another quality design that is strategically coordinated with the construction team members. As Deputy Design Manager, Gail will provide an additional layer of oversight to the design and quality control.

DB **Lead Structural Engineer Jeremy Schlusel, PE (WRA)** has recent design-build experience with Corman and E.V. Williams's affiliate Branch Highways as the Lead Bridge Engineer, including VDOT's Design-Build Fall Hill Avenue Bridge over I-95 with Corman. *Other design-build bridge design experience with Corman is the Route 29 Solutions Berkmar Drive Extension Bridge over South Fork of the Rivanna River.* Jeremy has over 20 years of experience in bridge design and rehabilitation having worked on over 110 tasks within the Richmond District since 2003, including major bridge rehabilitation, bridge replacements, bridge widenings, studies, and construction engineering services. *More than 20 of these tasks were constructed by Corman.* Jeremy will report to the Design Manager and be in charge of structural engineering, including plans, estimates, and specifications. *He has extensive experience designing interstate bridge projects for VDOT, including I-64 over Route 33 in the Richmond District, I-81 over New River Bridges in the Salem*

District, I-81 over Maury River and I-81 over Buffalo Creek bridge replacement projects in the Staunton District. He will also review structural shop drawings and assist the DBPM, CM, and DM during construction.

DB **Design | Construction Integrator: Ryan Gorman, PE, DBIA (Corman-Branch JV)** will coordinate with the contractor and designers and ensure the design meets all VDOT's requirements. He has been involved with local design-build projects since 2007 and has over 20 years of heavy civil construction experience. As a Virginia PE, Ryan performs engineering designs and estimates for construction. His career path as Corman's Superintendent to Sr. Project Manager to Design-Build Project Manager to most recently Vice President, Design-Build has broadened his attention to detail and quality which will enhance the Corman-Branch | WRA Team's position in meeting VDOT's requirements. Ryan will review design submittals for conformance to project requirements, constructability and scheduling needs. *He is currently the Design/Construction Integrator AND Responsible Charge Engineer (RCE) on the first contract in Virginia to require a dedicated RCE position – the \$116 Million Design-Build Route 29 Solutions project* where Ryan has been embedded with the WRA Design Team in their Richmond office during bridge and roadway design development for the Berkmar Extension and wet utility design portion of that project. He will report to the DBPM with lines of communication to the DM and CM.

DB **Lead Geotechnical Engineer Jeff Basford, PE (WRA)** has over 16 years' experience in subsurface explorations, geotechnical analysis, design of pavement sections and shallow and deep foundations, slope stability analysis, design of pavement sections and shallow and deep foundations, slope stability analysis, concrete and geo-synthetic reinforced earth retaining structures, and in-situ testing and verification during construction. *Jeff recently completed geotechnical engineering for Design-Build Fall Hill Avenue and three design-build projects in Washington, DC and in Hampton Roads, all with Corman. He is currently the Lead Geotechnical Engineer on the Design-Build I-81 Halls Bottom Road Bridge Replacement project and on the I-81 New River Bridge Replacement project in the Salem District and was the Lead Geotechnical Engineer on the I-81 Maury River and Buffalo Creek Bridge Replacement projects in the Staunton District.* Jeff has a complete understanding of the VDOT Manual



of Instruction, Chapter 3, will report to the Design Manager, and collaborate with the Structural Design Engineer and Construction Manager.

DB Public Relations Manager: Mike Carosi (Seventh Point) has over 21 years' experience leading outreach on major transportation projects and ensuring robust public affairs, community outreach, marketing, advertising, and strategic public communications programs. His knowledge and experience include collaboratively planning and delivering community and media relations programs associated with transportation construction and road building. *Mike is currently serving in a similar role on the Corman / E.V. Williams' Military Highway project* and will report to the DBPM with an open line of communication back to VDOT.

DB MOT Engineer: Dana Trone, PE, PTOE (WRA) has over 19 years of experience in traffic engineering, including developing Transportation Management Plans (TMP) and MOT design. She has developed TMPs for construction on interstates in Virginia and VDOT Design-Build projects, and prepared the 30% design for the Design-Build I-495 North Extension Shoulder Use Lane project. Dana will report to the DM and collaborate with the *Construction MOT Manager*.

DB Lead Environmental Compliance and Permitting: Taylor Sprenkle, PWD (WRA) will report to the Design Manager and secure any environmental permit modifications. He has over 12 years of experience with environmental reviews and permitting for transportation projects, including the I-81 Truck Climbing Lanes in Montgomery County and the 17-mile Route 460 project in the City of Suffolk and Isle of Wight County. During construction, Taylor will work with the Construction Environmental Manager to fulfill permit requirements.

DB Weigh Station Specialist: Lou Robbins, PE, DBIA (Corman-Branch JV) has over 45 years of design experience, including performing preliminary and final design for five weigh stations in Maryland and

New Jersey for SHA and NJDOT. During design, he will review the design's impact on the operation of the weigh station with the design team, and if the weigh station remains open during construction, work with the construction team to provide specialized MOT plans to accommodate the large volume of trucks. Lou will review items, such as the additional acceleration needs of the heavier vehicles and limited stopping distances and maneuverability. He will report to the Design Manager.

DB Architect for Pedestrian Tunnel: Doug Kelso, AIA (WRA) has over 40 years of experience in leadership and coordination of many projects, including for DOT clients, such as administration/operations buildings. He served as the Lead Architect and Project Manager on design-build projects, most recently the LaPlata Readiness Center in LaPlata, MD.

DB MEP for Pedestrian Tunnel: Kevin Fallin, PE LEED AP BD+C PMP, CEM (WRA) oversees a group of architects and engineers to produce building designs for new construction and renovation projects in governmental, municipal, commercial, mission critical, and higher education environments. He has over 23 years' experience in the design of government, commercial, and higher education facilities. As a Senior Mechanical Engineer, he uses his past experience to enhance energy efficiency, optimize system performance, and reduce operating costs. Kevin is involved in commissioning, sustainable design and documentation, troubleshooting, preparation of due diligence reports, property condition assessments, and energy audits. His Design-Build experience is extensive, including P-621 MCESG Quantico, and LaPlata Readiness Center. Kevin will report to the DM.



3.3.2 Organizational Chart: The Corman-Branch | WRA Team organizational chart on Page 8 illustrates our “chain of command” of all companies, including individuals responsible for pertinent disciplines proposed on our team and notes key personnel. Solid lines identify the reporting relationships of our team members in managing, designing and constructing the project and illustrate clear reporting lines from the DBPM to the design and construction team. Dashed lines represent indirect reporting and obligations. The chart also shows a clear separation and independence between the Quality Control (QC) and Quality Assurance (QA) programs for construction, including separation between QA and QC inspection and field/laboratory testing per Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, January 2012.

Functional Relationships – Integrate to Facilitate: Design-Build unites the contractor and designer more than just contractually. It integrates innovative design and construction techniques that benefit schedule and cost which lead to client satisfaction. Design/Construction Integrator Ryan Gorman, PE, DBIA will ensure timely interface between Corman-Branch JV’s field crews and the designers with concerns openly discussed. Having a dedicated Design/Construction Integrator during design and construction eliminates subsequent delays or rework, streamlines reviews, expedites plan revisions, and eliminates potential construction field issues, thereby guaranteeing a superior project on time and on budget. Through our DBPM and CM, we will create a firm relationship that sets the foundation to interact and partner with VDOT and third-party stakeholders. Other integration strategies during design and construction include:

- ✓ Interdisciplinary design reviews prior to milestones to coordinate design disciplines
- ✓ Corman-Branch JV constructability reviews of design, especially for MOT, E&S control, and utility conflict avoidance
- ✓ Weekly schedule meetings to review the previous week and develop three and four-week look aheads
- ✓ Monthly scheduling meetings to review CPM progress
- ✓ Weekly foreman meetings to discuss safety, schedule, and coordination
- ✓ Morning huddles with the crews to set daily safety and production goals
- ✓ Weekly progress meetings with VDOT to review and discuss submittals and progress
- ✓ Bi-weekly contractor coordination meetings with adjacent contracts, EMS, Police, etc.
- ✓ Monthly partnering meetings with stakeholders to identify and resolve issues

Our Key Personnel’s duties and responsibilities include:

DB Design-Build Project Manager (DBPM) Jo Ellen Sines, DBIA (Corman-Branch JV) is responsible for project design and construction, quality management, contract administration, and other services, including procuring/furnishing materials, equipment, services, and labor reasonable inferable from the contract documents in a timely manner. She will be available to VDOT, has the expertise/experience to supervise and exercise control of the work, and accepts responsibility for the final work product. Jo Ellen is VDOT’s primary point of contact who will coordinate, integrate, and administrate the Corman-Branch | WRA Team, including design, construction, QA, MOT, safety, public outreach, and utilities. *She will be responsible for meeting our contract obligations and avoid/resolve disputes per the RFP.* Jo Ellen will supervise the Design Manager, Design/Construction Integrator, Construction Manager, ROW Manager, and Quality Assurance Manager, *and manage/coordinate any public outreach and public meetings through the Public Relations Manager.* She will be involved with preconstruction, design, construction, and punch out. Jo Ellen will assist with constructability reviews and safety audits, and oversee the quality management program, purchasing, and construction operations.



DB **Quality Assurance Manager (QAM) Michael Saunders, PE, CCM, DBIA (NXL)** reports to the DBPM and will have direct, independent access to VDOT and our Executive Committee. He will ensure work and materials, testing, and sampling are performed in conformance with contract requirements and “*approved for construction*” plans/specifications. Michael will be responsible for development of and adherence to the QA Plan, QA inspection and testing of all materials used, and work performed. As an independent entity, he will audit and monitor Corman-Branch | WRA Team’s Construction QC Program. ***Michael can stop construction, enforce compliance with specifications, and issue and require resolution of Non-Conformance Reports (NCRs).*** He will manage the QA program, including the QA inspector and independent QA testing firm and testing technicians. ***The QA team will conduct independent and concurrent tests and analysis of the work from the construction QC team.*** Michael will maintain project quality records and approve/submit pay estimates. He will also submit monthly written reports to VDOT’s project manager and the JV’s Executive Committee.

DB **Design Manager (DM) Michael Russell, PE (WRA)** reports to the DBPM and brings over 28 years of experience designing and managing transportation projects and programs for VDOT. ***He is currently the Design Element Lead for the Design-Build Route 29 Solutions – Berkmar Avenue Extension with Corman as the Design-Builder in a joint venture, the Design Manager on the Design-Build I-81 Halls Bottom Road Bridges, Design QA/QC Manager on the Design-Build I-95 Express Lane Extension – Southern Terminus, and the Project Design Manager on the I-81 New River Bridge Replacement project in the Salem District.*** Mike will provide a quality product, meet design milestones, continual Design-Build Team coordination and involve the Design QA/QC Manager throughout design. He will ensure design work is performed in accordance with current VDOT Policies, Procedures and Guidelines, manage design, including roadway; structural; hydraulic; traffic; MOT; environmental; and geotechnical, assign resources as needed; oversee the design sub-consultant for survey; coordinate design and review schedules; develop and implement corrective measures, if necessary; and integrate environmental compliance measures into the design. Mike will coordinate design and construction with Lead Environmental Compliance & Permitting Coordinator Taylor Sprenkle to achieve commitments. He will remain involved once construction starts to oversee any plan modifications and shop drawings, and review construction activities with the CM as work progresses.

DB **Construction Manager Kyle Kern (Corman-Branch JV)** has over 26 years’ hands-on experience in managing construction, including QC activities to ensure materials and work meet contract requirements and “*approved for construction*” plans/specifications. He will manage the onsite construction team, including Project Controls, Construction QC Manager, superintendents, and project field staff, including scheduling, safety, environmental compliance, utilities and MOT. Kyle will be assigned to this project and be onsite full time throughout construction. He will play a key role in conjunction with Design/Construction Integrator Ryan Gorman and the Design QA/QC Manager in design constructability reviews, work with Ryan to coordinate between the design and construction forces with regard to environmental commitments, utilities, ROW, and MOT. Kyle and his staff will focus on performing construction safely, and along with our Construction QC Manager, that materials and work are per approved plans/contract documents. He will coordinate with the Design Manager during construction for the accurate and timely issuance and review of any RFIs and shop drawings, as well as field visits, preparation of as-builts and plan revisions.

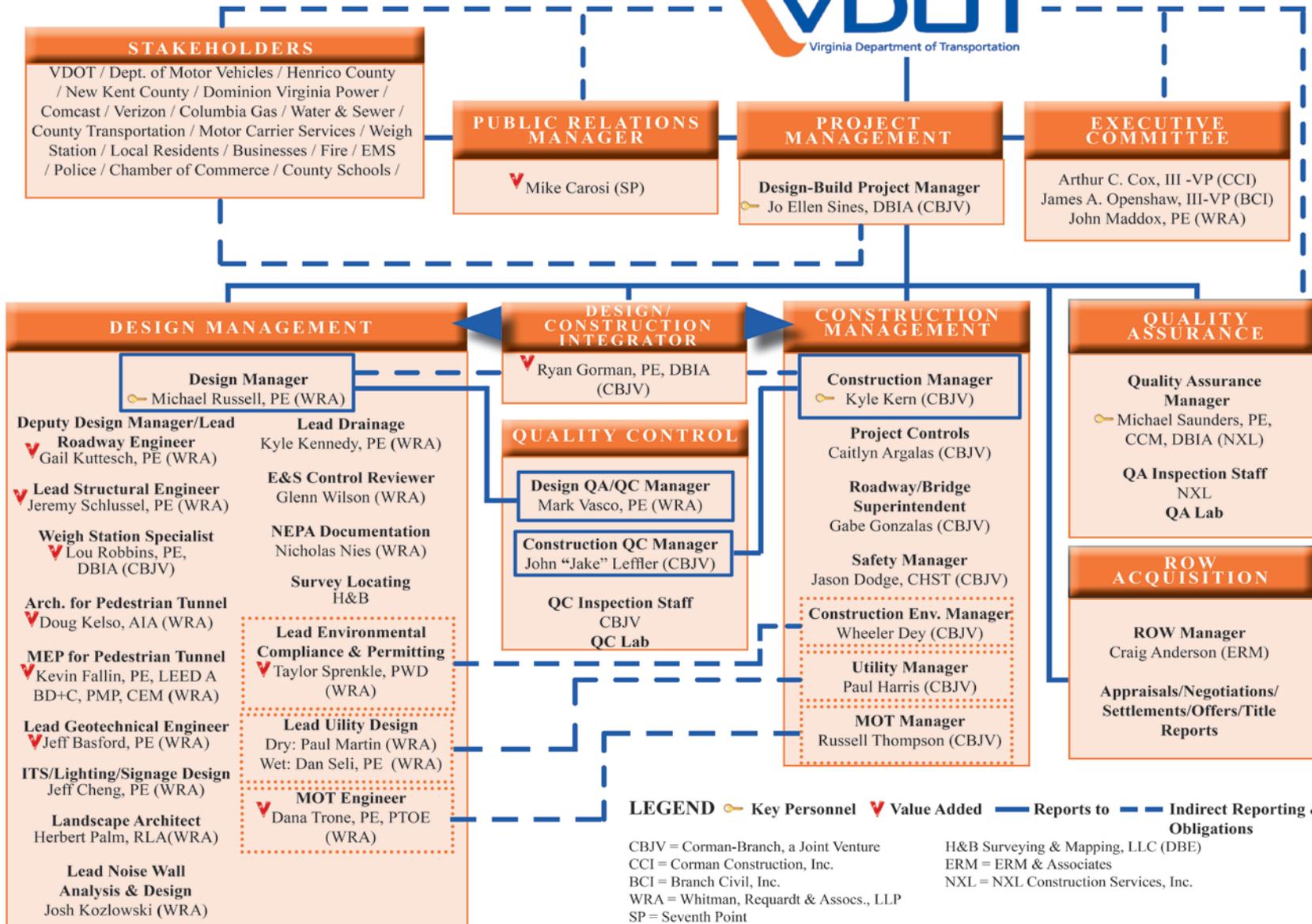


Keys to Success are communication and coordination between the many parties involved: Corman-Branch | WRA Team, VDOT, review agencies, and stakeholders. This is based upon open and honest communication, frequent meetings, and updates. The Corman-Branch | WRA Team will have internal weekly meetings during design with key construction and design staff present. Tracking sheets monitor progress of utilities, ROW, and design disciplines, as

well as environmental and design approvals. Once construction starts, design participants stay involved. Added to the weekly meetings as construction begins are the superintendents, field surveyors, MOT Manager, and Construction QC Manager. Key stakeholder representatives, including utility companies (Dominion Virginia Power, Comcast, Verizon, Columbia Gas, County Water and Sewer), County Schools, Hospital, EMS Responders, State Police (Weigh Station), DMV, Motor Carrier Services, and others will be invited. Monthly meetings will also be held with the Corman-Branch | WRA Team, VDOT, QAM, stakeholders and others to enhance partnering and resolve issues quickly and efficiently.

Quality Assurances will be coordinated with, but independent of, daily QC and construction. The QAM will be given timely notice of construction activities so his QA staff can be onsite to document compliance. He will have access to all meetings and records he needs to independently assure that construction complies with contractual and design requirements. Reporting to the DBPM, the QAM will provide VDOT and the Executive Committee with the reports and assurances required. He will have unrestricted access to the construction and fabricator sites/facilities. A Corman-Branch | WRA Management Team representative will contact the QAM monthly to confirm project compliance.

Our team members were selected for their firsthand knowledge of the site and their ability to handle their responsibilities and minimize VDOT/other agency involvement. *The team has effectively delivered design-build projects together and will bring proven management procedures and success to this project.*



Bill Schori

From: Jason Hoyle <jason.hoyle@branchcivil.com>
Sent: Friday, April 21, 2017 2:47 PM
To: Michael Colbert; Katie Bush; Ryan Gorman; Louis Robbins; Bill Schori; Jo Ellen Sines
Subject: Fwd: Your assigned Joint Ventuer # is JV084

New JV # from VDOT for Bottoms Bridge.

Sent from my iPhone

Begin forwarded message:

From: "Prequalification (VDOT)" <Prequalification@VDOT.Virginia.gov>
Date: April 21, 2017 at 10:45:00 AM EDT
To: 'Jason Hoyle' <jason.hoyle@branchcivil.com>
Subject: Your assigned Joint Ventuer # is JV084

Branch Civil, Inc.,
Corman Construction, Inc.,

Thank you for submitting the Joint Venture agreement to the Prequalification Office.
We have processed the paperwork and the
Joint Venture: Corman-Branch JV is assigned the # **JV084**

Please feel free to contact me if there are any concerns.

Thank-you

Suzanne Lucas, CAPM

State Prequalification Supervisor
Construction Division
Virginia Department of Transportation
1401 East Broad Street
Richmond, Virginia 23219
(804)-786-2941

Email: Prequalification@VDOT.Virginia.gov

4.2.2 | Conceptual Roadway Plans



FHWA 534 DATA 41103

STATE	FEDERAL AID PROJECT		STATE PROJECT		SHEET NO.
	PROJECT	ROUTE	PROJECT	ROUTE	
VA.	NHPP-064-3 ()	64	(FO) 0064 - 043 - 602		1
	STP-064-3 ()	64	(NFO) 0064 - 043 - 852		
	NHPP-064-3 ()	64	(NFO) 0064 - 043 - 603		
	SEE TABULATION BELOW FOR SECTION NUMBERS		SEE TABULATION BELOW FOR SECTION NUMBERS		

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
 GEOPAK Computer Identification No. 107458



COMMONWEALTH OF VIRGINIA
 DEPARTMENT OF TRANSPORTATION



PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

DESIGN-BUILD PROJECT RFP CONCEPTUAL PLANS

HENRICO COUNTY & NEW KENT COUNTY
 ROUTE: INTERSTATE 64
 FROM: 0.419 MI. EAST OF ROUTE 1-295 (Exit 200)
 TO: 0.149 MI. WEST OF ROUTE 249 (Exit 205)

ADDITIONAL EASEMENTS FOR UTILITY RELOCATIONS MAY BE REQUIRED BEYOND THE PROPOSED RIGHT-OF-WAY SHOWN ON THESE PLANS.

THESE PLANS ARE UNFINISHED AND UNAPPROVED. THEY ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR FOR THE ACQUISITION OF RIGHT OF WAY.

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA

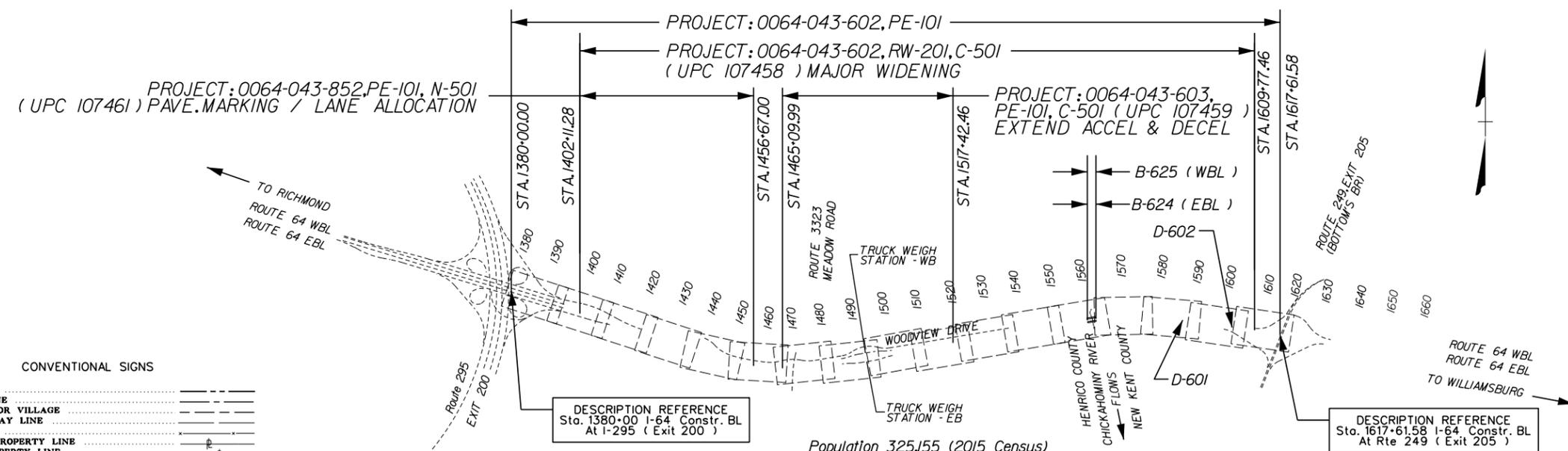
GS-5 URBAN PRINCIPAL ARTERIAL (INTERSTATE) - DIVIDED - ROLLING - 70 MPH DESIGN SPEED

	FROM: ROUTE 295, EXIT 200	TO: ROUTE 249, EXIT 205 (BOTTOM'S BR)
	EAST BOUND LANES	WEST BOUND LANES
ADT (2016)	35000	36000
ADT (2040)	47200	48500
DHV	XXX	XXX
D (%) (design hour)	50 %	50 %
T (%) (design hour)	9 %	9 %
V (MPH)		

* SEE PLAN AND PROFILE SHEETS FOR HORIZONTAL AND VERTICAL CURVE DESIGN SPEEDS

EXCEPTIONS TO MAINLINE DESIGN SPEED (0064 - 043 - 602, PE-101, RW-201, C-501)

STA. TO STA.	DESIGN SPEED	REASON FOR EXCEPTION	APPROVAL DATE
CURVE *2 WBL 2447+06.09 TO 2475+21.23	APPROX. 48	INSIDE WIDENING SUPERELEVATION RATE	Design Exception Dated FEBRUARY 27, 2017 (APPROVAL PENDING)
CURVE *3 EBL 2563+43.90 TO 2581+69.69			
ENTIRE PROJECT	APPROX. 48	MILLING & OVERLAY EXISTING CROSS SLOPES EXISTING SUPERELEVATION	Design Exception Dated MARCH 9, 2017 (APPROVAL PENDING)



CONVENTIONAL SIGNS

STATE LINE	---
COUNTY LINE	---
CITY, TOWN OR VILLAGE	---
RIGHT OF WAY LINE	---
FENCE LINE	---
UNFENCED PROPERTY LINE	---
FENCED PROPERTY LINE	---
WATER LINE	---
SANITARY SEWER LINE	---
GAS LINE	---
ELECTRIC UNDERGROUND CABLE	---
TRAVELED WAY	---
GUARD RAIL	---
RETAINING WALL	---
RAILROADS	---
BASE OR SURVEY LINE	---
LEVEE OR EMBANKMENT	---
BRIDGES	---
CULVERTS	---
DROP INLET	---
POWER POLES	---
TELEPHONE OR TELEGRAPH POLES	---
TELEPHONE OR TELEGRAPH LINES	---
HEDGES	---
TREES	---
HEAVY WOODS	---
GROUND ELEVATION	---
GRADE ELEVATION	---

Population 325,155 (2015 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
					FEET	MILES	FEET	MILES			
0064-043-602	PE-101	NHPP-064-3 (499)		107458	23761.58	4.500	23499.58	4.450		PRELIM ENGR	FROM: RTE. 1-295 (EXIT 200) TO: RTE. 249 (EXIT 205)
	RW-201	NHPP-064-3 (499)		107458	20766.18	3.933	20504.18	3.883		RIGHT OF WAY	FROM: 0.419 MI. E. RTE. 1-295 (EXIT 200) TO: 0.149 MI. W. RTE. 249 (EXIT 205)
	C-501	NHPP-064-3 (499)	I000	107458	20766.18	3.933	20504.18	3.883		CONSTRUCTION	FROM: 0.419 MI. E. RTE. 1-295 (EXIT 200) TO: 0.149 MI. W. RTE. 249 (EXIT 205)
	D-601	NHPP-064-3 (499)	X048	107458	NOTE: ACTUAL NUMBER NEEDS TO BE ASSIGNED					BOX CULVERT	QUAD 72" (W) X 84" (H) BOX CULVERT
	D-602	NHPP-064-3 (499)	X048	107458	NOTE: ACTUAL NUMBER NEEDS TO BE ASSIGNED					BOX CULVERT	TRIPLE 72" (W) X 60" (H) BOX CULVERT
	B-624	NHPP-064-3 (499)	X081	107458	262.00	0.050				BRIDGE	1-64 EBL OVER CHICKAHOMINY RIVER
0064-043-852	B-625	NHPP-064-3 (499)	X081	107458	262.00	0.050				BRIDGE	1-64 WBL OVER CHICKAHOMINY RIVER
	PE-101	STP-064-3 (494)		107461	5455.72	1.033	5455.72	1.033		PRELIM ENGR	FROM: 0.419 MI. E. RTE. 1-295 (EXIT 200) TO: 1.452 MI. E. RTE. 1-295 (EXIT 200)
	N-501	STP-064-3 (496)	I000	107461	5455.72	1.033	5455.72	1.033		CONSTRUCTION	FROM: 0.419 MI. E. RTE. 1-295 (EXIT 200) TO: 1.452 MI. E. RTE. 1-295 (EXIT 200)
0064-043-603	PE-101	STP-064-3 (495)		107459	5232.47	0.991	5232.47	0.991		PRELIM ENGR	FROM: 1.612 MI. E. RTE. 1-295 (EXIT 200) TO: 2.603 MI. E. RTE. 1-295 (EXIT 200)
	C-501	NHPP-064-3 (506)	I000	107459	5232.47	0.991	5232.47	0.991		CONSTRUCTION	FROM: 1.612 MI. E. RTE. 1-295 (EXIT 200) TO: 2.603 MI. E. RTE. 1-295 (EXIT 200)

TIER 2 PROJECT

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

DATE	INFRASTRUCTURE INVESTMENT DIRECTOR
DATE	STATE LOCATION AND DESIGN ENGINEER
DATE	CHIEF FINANCIAL OFFICER
DATE	CHIEF ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION

DATE	CHIEF OF POLICY
------	-----------------

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE	INFRASTRUCTURE INVESTMENT DIRECTOR
DATE	STATE LOCATION AND DESIGN ENGINEER
DATE	STATE STRUCTURE AND BRIDGE ENGINEER
DATE	CHIEF FINANCIAL OFFICER

APPROVED FOR CONSTRUCTION

DATE	CHIEF ENGINEER
------	----------------

APPROVED

DATE	DIVISION ADMINISTRATOR FEDERAL HIGHWAY ADMINISTRATION U.S. DEPARTMENT OF TRANSPORTATION
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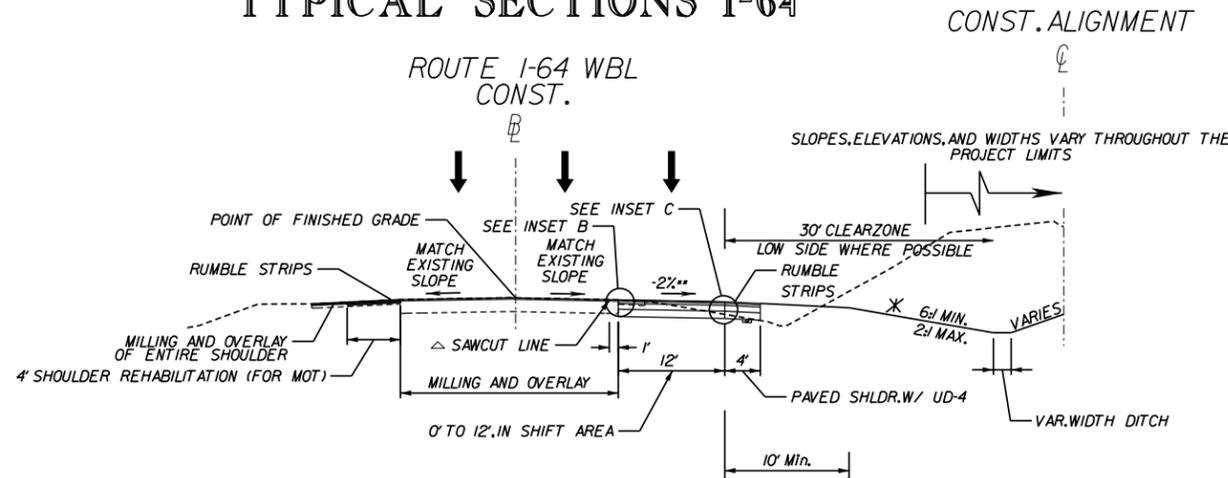
PROJECT LENGTHS ARE BASED ON INTERSTATE ROUTE 64 CONSTRUCTION CENTERLINE.

Copyright 2017, Commonwealth of Virginia

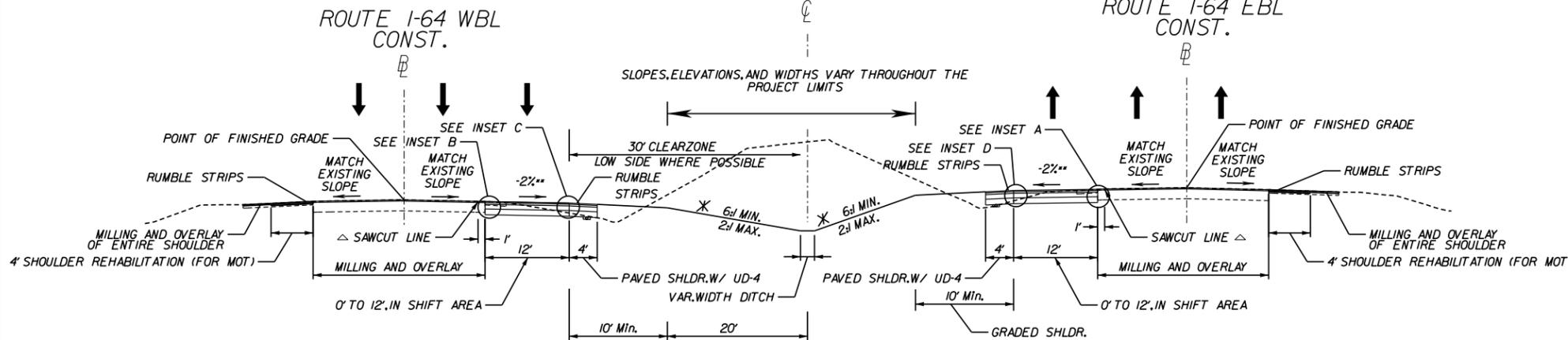
TYPICAL SECTIONS I-64

CONCEPTUAL PLANS I-64 WIDENING EXIT 200 TO 205

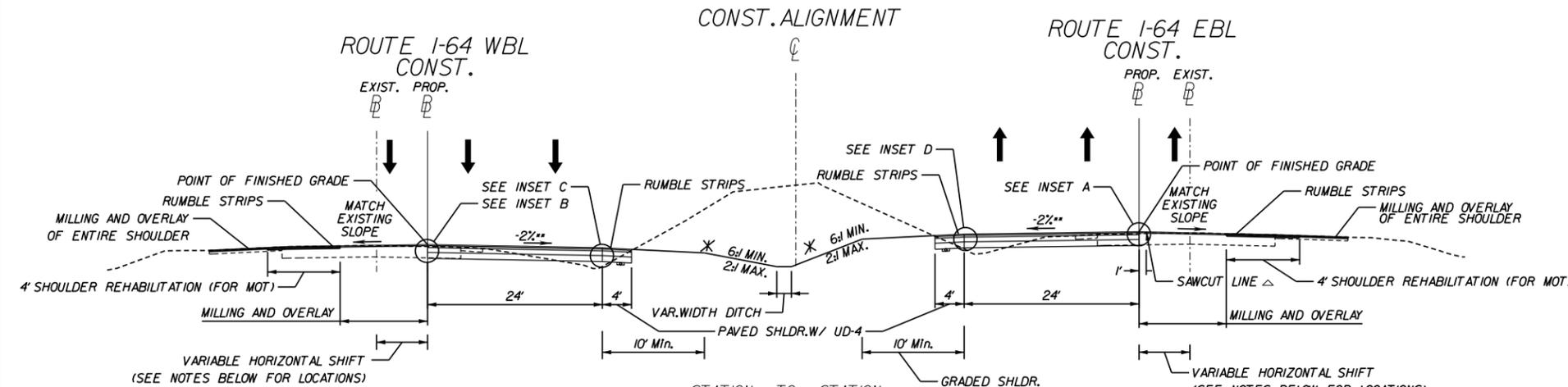
STATE PROJ.: 0064-043-602 PE101,RW-201,C-501,D-601,D-602,B-624,B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101,C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101,N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE.MARKING/LANE ALLOCATION)



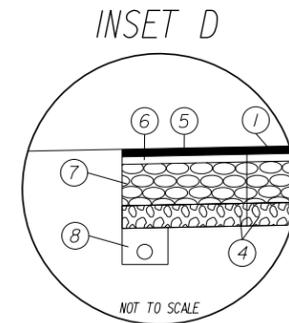
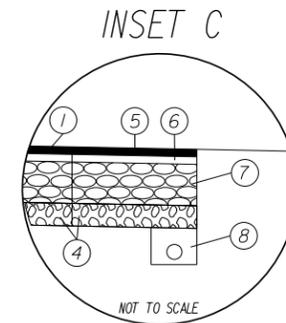
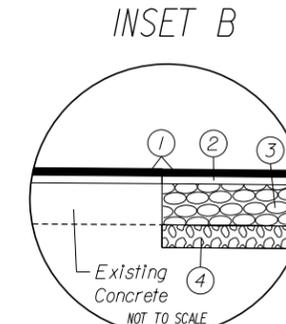
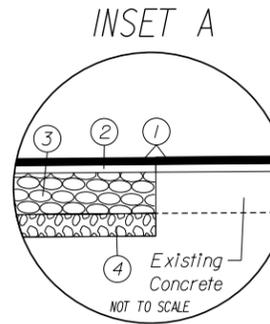
CONST. ALIGNMENT
 STATION TO STATION
 1436+00.33 TO 1442+48.43
 1602+71.47 TO 1609+78.43



CONST. ALIGNMENT
 STATION TO STATION
 1442+48.43 TO 1467+63.58
 1469+58.64 TO 1546+29.96
 1581+42.13 TO 1602+71.47



CONST. ALIGNMENT
 STATION TO STATION
 1546+29.94 TO 1556+29.94 (VARIABLE SHIFT FROM 0' TO 6'-2")
 1556+29.94 TO 1562+99.11 (6'-2" HORIZONTAL SHIFT)
 1562+99.11 TO 1581+42.13 (VARIABLE HORIZONTAL SHIFT)



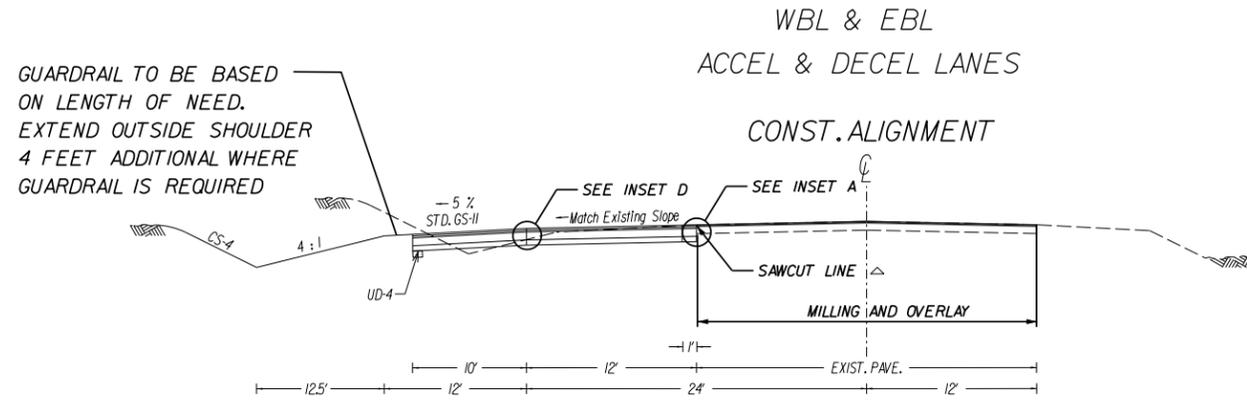
- PAVEMENT SECTION NOTES**
- ① SURFACE - 2" ASPHALT CONCRETE, SMA-12.5
 - ② INTERMEDIATE - 2" ASPHALT CONCRETE, SMA-19.0
 - ③ BASE - 9" ASPHALT CONCRETE, BM-25.0D-0.4
 - ④ SUBBASE - 6" AGGREGATE, TYPE 1, SIZE NO. 21B
 - ⑤ SURFACE - 2" ASPHALT CONCRETE, SM-12.5D
 - ⑥ INTERMEDIATE - 2" ASPHALT CONCRETE, IM-19.0D
 - ⑦ BASE - 9" ASPHALT CONCRETE, BM-25.0D
 - ⑧ ST'D UD-4 UNDERDRAIN

- NOTES**
1. RUMBLE STRIPS TO BE INSTALLED ONCE TRAFFIC HAS BEEN MOVED BACK TO THE MAINLINE.
 2. GUARDRAIL TO BE BASED ON LENGTH OF NEED. EXTEND INSIDE SHOULDER 4 FEET ADDITIONAL WHERE GUARDRAIL IS REQUIRED
 - * LOW SIDE (EBL OR WBL) SLOPE WILL RANGE FROM 4:1 TO 6:1 WITH 6:1 BEING IDEAL IN MOST LOCATIONS. THE HIGH SIDE SLOPE WILL BE VARIABLE WITH A 2:1 MAX.
 - ** SUPERELEVATION RATES SHALL MEET DESIGN EXCEPTION AND VDOT STANDARDS
 - △ PERFORM SAW CUT IN ASPHALT CONCRETE 1' FROM PAVEMENT MARKING AND LEAVE UNDERLYING CONCRETE PAVEMENT INTACT AND UNDAMAGED.

TYPICAL SECTIONS I-64

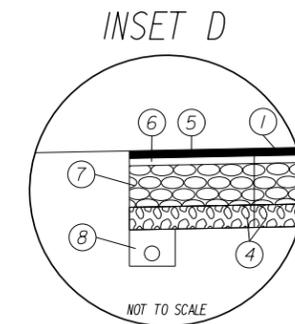
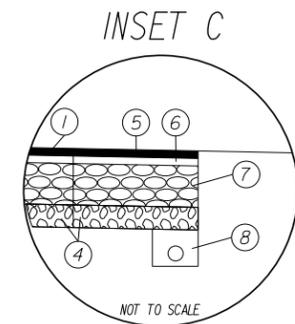
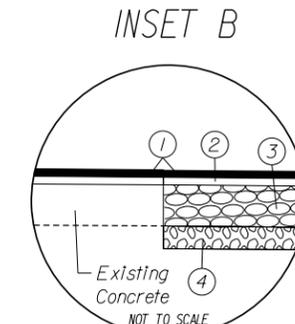
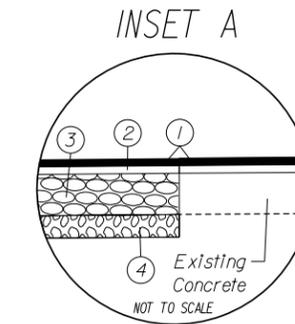
CONCEPTUAL PLANS I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101,RW-201,C-501,D-601,D-602,B-624,B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101,C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101,N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



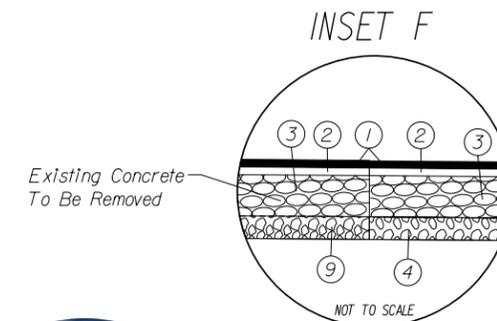
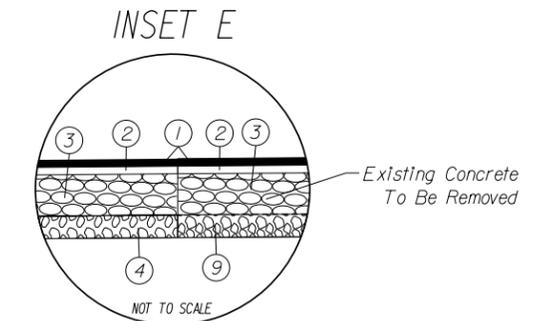
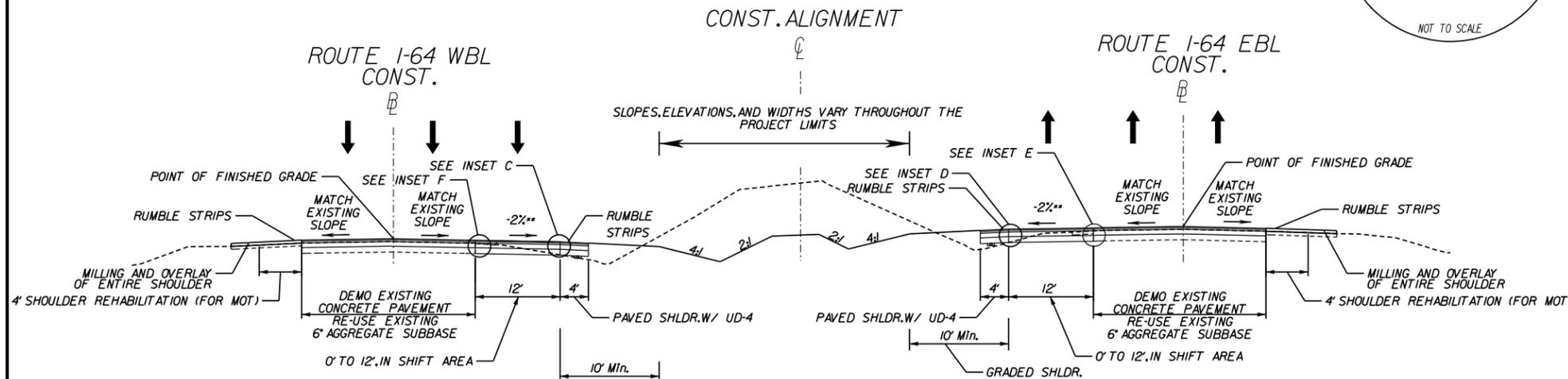
STA. 1465+09.99 TO STA. 1475+76.36 WBL (ON RAMP)
 STA. 1501+51.36 TO STA. 1507+98.43 WBL (OFF RAMP)
 STA. 1474+37.45 TO STA. 1480+76.08 EBL (OFF RAMP)
 STA. 1504+77.36 TO STA. 1517+42.46 EBL (ON RAMP)

NOTE: Mill and Overlay Existing Ramps to Gore Area.



PAVEMENT SECTION NOTES

- ① SURFACE - 2" ASPHALT CONCRETE, SMA-12.5
- ② INTERMEDIATE - 2" ASPHALT CONCRETE, SMA-19.0
- ③ BASE - 9" ASPHALT CONCRETE, BM-25.0D-0.4
- ④ SUBBASE - 6" AGGREGATE, TYPE 1, SIZE NO. 21B
- ⑤ SURFACE - 2" ASPHALT CONCRETE, SM-12.5D
- ⑥ INTERMEDIATE - 2" ASPHALT CONCRETE, IM-19.0D
- ⑦ BASE - 9" ASPHALT CONCRETE, BM-25.0D
- ⑧ ST'D UD-4 UNDERDRAIN
- ⑨ EXISTING AGGREGATE - TO BE RE-USED



NOTES

1. RUMBLE STRIPS TO BE INSTALLED ONCE TRAFFIC HAS BEEN MOVED BACK TO THE MAINLINE.
 2. GUARDRAIL TO BE BASED ON LENGTH OF NEED. EXTEND INSIDE SHOULDER 4 FEET ADDITIONAL WHERE GUARDRAIL IS REQUIRED
- * LOW SIDE (EBL OR WBL) SLOPE WILL RANGE FROM 4:1 TO 6:1 WITH 6:1 BEING IDEAL IN MOST LOCATIONS. THE HIGH SIDE SLOPE WILL BE VARIABLE WITH A 2:1 MAX.

STATION TO STATION
1467+63.58 TO 1469+58.65

- ** SUPERELEVATION RATES SHALL MEET DESIGN EXCEPTION AND VDOT STANDARDS
- △ PERFORM SAW CUT IN ASPHALT CONCRETE 1' FROM PAVEMENT MARKING AND LEAVE UNDERLYING CONCRETE PAVEMENT INTACT AND UNDAMAGED.



See Sheet 2 of 3 for Acronyms

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

* Denotes information that is to be provided/completed by the VDOT RLD.
** Denotes information that is to be provided/completed by the contractor.

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

SECTION I GENERAL INFORMATION

1. Activity Description -

2. This land disturbance (construction) activity site is located in Henrico County and New Kent County, Virginia, and approximately 64.97 acres will be disturbed by excavation, grading or other construction activities.

3. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 form) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing (construction) activity.



** 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

** 5. Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List permit number when applicable)

6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments:

7. Identify the TMDLs where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2014 for sediment, total suspended solids, turbidity, nitrogen or phosphorus: Chickahominy River, Sediment

8. This land disturbance (construction) activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code: NONE

9. Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.

11. (a) List the RLD for the land disturbance activity: (required for erosion and sediment control)
(b) The following individual(s) has delegated authority to sign all reports required by the construction permit including the SWPPP (LD445E) and inspection reports. The individual(s) has overall responsibility for environmental matters for the project: (required only for permitted projects)

Name	Position
TBD	

* 12. The name of the individual(s) responsible for the inspection of the erosion and sediment control and pollution prevention measures on this land disturbance (construction) activity is identified on the LD-445E form which will be maintained with the other SWPPP documents for this land disturbance (construction) activity (Note: Individual(s) shall be certified through the DEQ ESC Inspector Certification Program and shall be knowledgeable in the area of pollution prevention at construction sites and shall be a VDOT employee or an agent working for VDOT.)

* 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow either Schedule 1 or 2 as defined in Section 107.16(e) of the VDOT Road & Bridge Specifications Special Provision S107J31. Rain gage notes apply only to Inspection Schedule 1.

** 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance (construction) activity: (List location of rain gage)

The rain gage shall be observed daily at (insert time) to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage. If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

15. The following VDOT documents serve the purpose of a) permitted projects b) non-permitted projects in Chesapeake Bay Preservation Areas (CBPA) with 2,500 S.F. to 1.0 acre of land disturbance c) non-permitted projects requiring a SWPPP and d) Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP:

- VDOT LD-445: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
- VDOT LD-445A: Permitted projects only.
- VDOT LD-445B: Permitted projects only.
- VDOT LD-445C: Projects that require a permit or SWPPP.
- VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP.
- VDOT LD-445E: Permitted projects only.
- VDOT LD-445F: Emergency work projects (when applicable).
- VDOT LD-445G: Permitted and CBPA projects requesting a Water Quality Requirement Exception (when applicable).
- VDOT LD-445H: Permitted projects only.
- VDOT C-107 Part I and Part II: All projects that require a permit or SWPPP.

SECTION II EROSION AND SEDIMENT CONTROL

1. The following variances to the Virginia ESC Regulations have been approved by the DEQ for this land disturbance (construction) activity: (list all approved variances: include a brief description of the variance, the date approved and the approving DEQ Office)

** 2. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity.

3. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

4. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

5. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

6. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

CONCEPTUAL PLANS I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625

FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)

STATE PROJ.: 0064-043-603 PE101, C-501

FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)

STATE PROJ.: 0064-043-852 PE101, N-501

FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

7. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of Section III.

** 8. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity: (List how this will be tracked and the location)

9. A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in Sections 107.16 and 303.03 of the VDOT R&B Specifications.

10. Nutrients shall be applied in accordance with Sections 603 and 604 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events.

11. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the (insert appropriate location, i.e., VDOT Central Office Hydraulics Section or the VDOT (specify) District Hydraulics Section or the VDOT (specify) Residency Office) and will be made available for review upon request during normal business hours.

12. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.

13. The areas beyond the project's construction area are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.

14. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.

15. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.

16. The contractor shall plan and implement his land disturbance operations in order to:

- a. Control the volume and velocity of stormwater runoff within the site to minimize erosion.
- b. Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
- c. Minimize the amount of soil exposed.
- d. Minimize the disturbance of steep slopes.
- e. Minimize sediment discharge from the site.
- f. Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
- g. Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.

** 17. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance (construction) activity.

18. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be stabilized or protected with sediment trapping measures.

19. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
STATE PROJ.: 0064-043-603 PE101, C-501
FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
STATE PROJ.: 0064-043-852 PE101, N-501
FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

SECTION III SWPPP

1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to, the construction plans (or other such documents), the ESC Plan, the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as a copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.

2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.

XX 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.

X 4. By completing and submitting the SWPPP Certification form LD-445E, the RLD, or his authorized representative, certifies that all documents identified herein to be supplied by the contractor will be reviewed, approved (as applicable) and included with the other SWPPP documents for this land disturbance (construction) activity prior to start of work in those areas identified by such information.

5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.

X 6. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.

7. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

ACRONYMS

- | | |
|--|---|
| BMP - Best Management Practice | TMDL - Total Maximum Daily Load |
| DEQ - Department of Environmental Quality | VDOT - Virginia Department of Transportation |
| EPA - U.S. Environmental Protection Agency | VPDES - Virginia Pollutant Discharge Elimination System |
| ESC - Erosion and Sediment Control | VSMP - Virginia Stormwater Management Program |
| IIM - Instructional and Informational Memorandum | VESCP - Virginia Erosion and Sediment Control Program |
| R&B - Road and Bridge | |
| RLD - Responsible Land Disturber | |
| SWM - Stormwater Management | |
| SWPPP - Stormwater Pollution Prevention Plan | |

SECTION IV POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note 1 or 2 that is applicable to the proposed post construction SWM Plan for this land disturbance (construction) activity. (Delete, strikethrough or mark as NA those notes not applicable.)

1. This land disturbance (construction) activity is grandfathered under Section 9VAC25-870-48 of the VSMP Regulations and utilizes the Part IIC technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section 9VAC25-870-93 et seq. of the VSMP Regulations.

~~2. This land disturbance (construction) activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 9VAC25-870-62 et seq. of the VSMP Regulations.~~

~~3. An exception for (number) pounds of phosphorus removal has been granted for this land disturbance (construction) activity by the DEQ in its letter dated (date).~~

~~4. The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office)~~

5. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

6. A description of all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed is included in the construction plan set (or other such documents) for this land disturbance (construction) activity.

7. All engineering calculations supporting the design of the post-construction stormwater management measures for this land disturbance (construction) activity, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the (the VDOT Richmond District Hydraulics Section) and will be made available for review upon request during normal working business hours.

SECTION V - POLLUTION PREVENTION PLAN

1. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:

- Wastewater from concrete washouts.
- Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
- Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
- Oils, toxic substances or hazardous substances from spills or other releases.
- Soaps, solvents or detergents used in equipment and vehicle washing.
- There shall be no discharge of floating solids or visible foam in other than trace amounts

2. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:

- Discharges from fire fighting activities.
- Fire hydrant flushings.
- Waters used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
- Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
- Potable water sources including uncontaminated waterline flushings.
- Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.

X Denotes information that is to be provided/completed by the VDOT RLD.
XX Denotes information that is to be provided/completed by the contractor.

- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
- Uncontaminated air conditioning or compressor condensate.
- Uncontaminated ground water or spring water.
- Foundation or footing drains where flows are not contaminated with process materials such as solvents.
- Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to discharge.
- Landscape irrigation.

3. The contractor shall develop a Pollution Prevention Plan to address any of his on-site operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:

- Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
- Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans.
- Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
- Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
- Describe the pollution prevention practices and procedures that will be implemented to:
 - Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.
 - Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
 - Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
 - Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
 - Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
 - Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
 - Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, and sanitary wastes.
 - Address any other discharge from any potential pollutant-generating activity not listed herein.
 - Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.



**STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
GENERAL INFORMATION SHEET**

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

**CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205**

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

ACRONYMS

BMP - Best Management Practice
 DEQ - Department of Environmental Quality
 EPA - U.S. Environmental Protection Agency
 ESC - Erosion and Sediment Control
 IIM - Instructional and Informational Memorandum
 R&B - Road and Bridge
 RLD - Responsible Land Disturber
 SWM - Stormwater Management
 SWPPP - Stormwater Pollution Prevention Plan

ACRONYMS

TMDL - Total Maximum Daily Load
 VDOT - Virginia Department of Transportation
 VPDES - Virginia Pollutant Discharge Elimination System
 VSMP - Virginia Stormwater Management Program
 VESCP - Virginia Erosion and Sediment Control Program

SECTION VI - PERMANENT BMP INFORMATION Δ

* Denotes information that is to be completed by the VDOT RLD.
 () See note referenced by number in parentheses.



**INSTALLED BMP INFORMATION
Table A
(VDOT Owned/Operated)**

Plan Sheet(s)	BMP Type (See Table 1 and 3)	County or City	Latitude/Longitude (1)		State Hydrologic Unit Code (7)	Receiving Stream Name (2)	Name of Impaired Water (9)	Acres Treated Per BMP (3)			* BMP Maintenance ID Number (10)	BMP Maintenance Manual (11)	BMP Inspection Manual (11)
			LAT	LONG				Impervious	Pervious	TOTAL			
8	Shallow Retention Basin	Henrico	37.5142	-77.2452	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.7 ac	0.6 ac	1.3 ac			
12	Shallow Retention Basin	Henrico	37.5156	-77.2260	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.7 ac	0.6 ac	1.3 ac			
12	Shallow Retention Basin	Henrico	37.5157	-77.2247	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.4 ac	0.5 ac	0.9 ac			
12	Shallow Retention Basin	Henrico	37.5159	-77.2234	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.8 ac	0.7 ac	1.5 ac			
13	Shallow Retention Basin	Henrico	37.5163	-77.2196	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.7 ac	0.6 ac	1.3 ac			
13	Shallow Retention Basin	Henrico	37.5165	-77.2182	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.4 ac	0.3 ac	0.7 ac			
14	Shallow Retention Basin	Henrico	37.5167	-77.2168	JL20	Unnamed Tributary of Chickahominy River	Chickahominy River	0.4 ac	0.3 ac	0.7 ac			
15	Shallow Retention Basin	Henrico	37.5172	-77.2126	JL20	Chickahominy River	Chickahominy River	1.1 ac	0.7 ac	1.8 ac			
16	Shallow Retention Basin	New Kent	37.5179	-77.2060	JL20	Chickahominy River	Chickahominy River	1.1 ac	0.9 ac	2.0 ac			
16	Shallow Retention Basin	New Kent	37.5179	-77.2046	JL20	Chickahominy River	Chickahominy River	0.5 ac	0.5 ac	1.0 ac			
17	Shallow Retention Basin	New Kent	37.5179	-77.2030	JL20	Chickahominy River	Chickahominy River	0.5 ac	0.5 ac	1.0 ac			

**ALTERNATIVE BMP INFORMATION
Table B**

BMP Type (See Table 2)	Name of Nutrient Credit Generating Entity (6)	County or City (5)	Latitude/Longitude (1) (5)		State Hydrologic Unit Code (5) (7)	Project Acres Treated Per BMP (3)			Nutrient Credits (lbs./acre/year) Acquired (6) (12)
			LAT	LONG		Impervious	Pervious	TOTAL	
Purchase of Nutrients Credits	Cranston Millpond	James City Co.							2.75 lbs./acre/year

Table 1: Permanent BMP Types (1999 Va. SWM Handbook)

Bio-Retention Basin
 Bio-Retention Filter
 Constructed Stormwater Wetlands
 Extended Detention Basin
 Extended Detention Basin Enhanced
 Grassed Swale
 Infiltration Basin
 Infiltration Trench
 Manufactured Treatment Device
 (MTD) (8)
 Retention Basin I
 Retention Basin II
 Retention Basin III
 Sand Filter
 Vegetated Filter Strip
 Other Approved Types (List Type)

Table 2: Alternative BMP Types

Comprehensive SWM Plan (Regional) Facility
 Pollutant Loading Pro Rata Share Program
 Purchase of Nutrients Credits
 Other Approved Options (List Type) (4)

Table 3: Permanent BMP Types (BMP Clearing House)

Sheet Flow to Vegetated Filter Strip
 Grass Channel
 Soil Compost Amendment
 Permeable Pavement
 Infiltration Practice
 Bioretention
 Dry Swale
 Wet Swale
 Filtering Practice
 Constructed Wetlands
 Bioretention Conservation
 Extended Detention Pond
 Wet Pond
 Manufactured Treatment Device (MTD)(8)
 Other Approved Types (List Type) (4)

NOTES:

- (1) In decimal degrees to the nearest one ten-thousandth of a degree.
- (2) For streams with no names, list "(Unnamed Tributary to closest stream name)".
- (3) Show acres treated to the nearest one tenth acre.
- (4) Include agreements with off-site BMP owners.
- (5) Information pertains to the alternative BMP option location, where applicable. Exception - Not required for nutrient credit purchase option.
- (6) Applies to the purchase of nutrient credits only.
- (7) Virginia 6th Order HUC (VAHU6) Example - Y030.
- (8) Final approved shop drawings of Manufactured Treatment Devices (MTDs) are to be included with the BMP information submitted with the LD-445D form.

- (9) List the name of any impaired water to which the BMP discharges. The determination of impaired water shall be based on those streams listed as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report and shall be the first named waterbody to which the BMP discharges. The impaired waters are those impaired by sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments.
- (10) BMP Maintenance ID Number is to be assigned by the District Infrastructure Manager at permit termination or project completion.
- (11) Provide the section of each Maintenance manual that pertains to the type of BMP. Both manuals can be found at www.vdot.virginia.gov/business/manuals in the Maintenance selections. Example: Section 4 would be noted for both the maintenance and inspection manuals for a Bioretention Infiltration BMP.
- (12) Nutrient credits purchased to the nearest one hundredth pound.

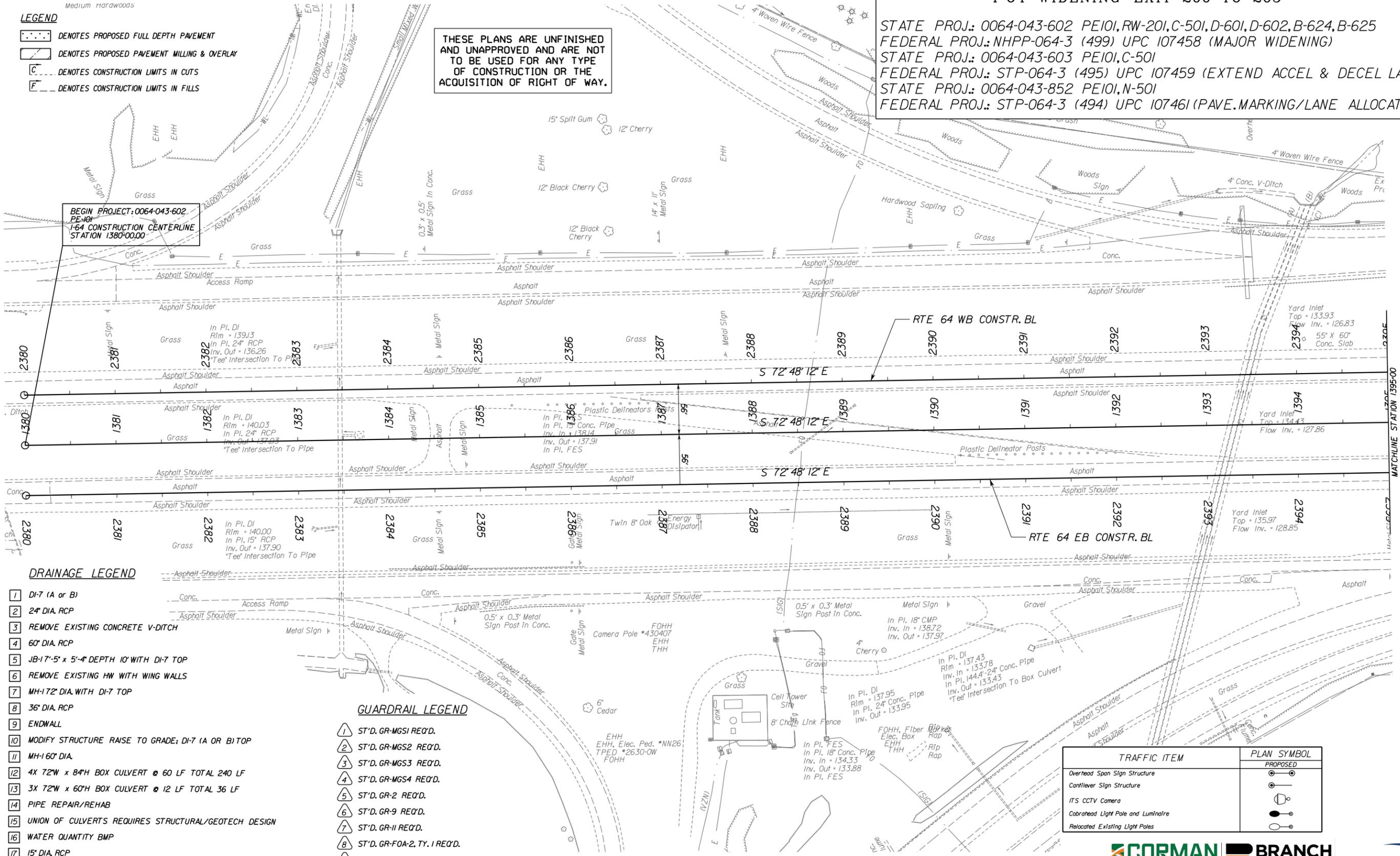
Δ Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project that affects the proposed construction details or potentially affects the information shown in the BMP Tables A and/or B shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The construction plans and the BMP Tables A and/or B are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the Road Design Manual and the Construction Division IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the record set of construction plans maintained in the VDOT Central Office Plan File Room (Falcon Web Suite). Prior to submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Infrastructure Manager review the BMPs installed with the project (BMP Table A) for acceptance of maintenance responsibility and to obtain a Maintenance ID number for each BMP listed in BMP Table A. The RLD shall use the information in BMP Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when certifying the construction of the BMPs and submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities.

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 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE.MARKING/LANE ALLOCATION)

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 AND UNAPPROVED AND ARE NOT
 TO BE USED FOR ANY TYPE
 OF CONSTRUCTION OR THE
 ACQUISITION OF RIGHT OF WAY.

- LEGEND**
- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - ▭ DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - C--- DENOTES CONSTRUCTION LIMITS IN CUTS
 - F--- DENOTES CONSTRUCTION LIMITS IN FILLS



- DRAINAGE LEGEND**
- 1 DI-7 (A or B)
 - 2 24" DIA. RCP
 - 3 REMOVE EXISTING CONCRETE V-DITCH
 - 4 60" DIA. RCP
 - 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
 - 6 REMOVE EXISTING HW WITH WING WALLS
 - 7 MH-172" DIA. WITH DI-7 TOP
 - 8 36" DIA. RCP
 - 9 ENDWALL
 - 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
 - 11 MH-160" DIA.
 - 12 4X 72"W x 84"H BOX CULVERT @ 60 LF TOTAL 240 LF
 - 13 3X 72"W x 60"H BOX CULVERT @ 12 LF TOTAL 36 LF
 - 14 PIPE REPAIR/REHAB
 - 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
 - 16 WATER QUANTITY BMP
 - 17 15" DIA. RCP
 - 18 EW-IIA
 - EW-12 & OUTLET PIPE ASSEMBLY

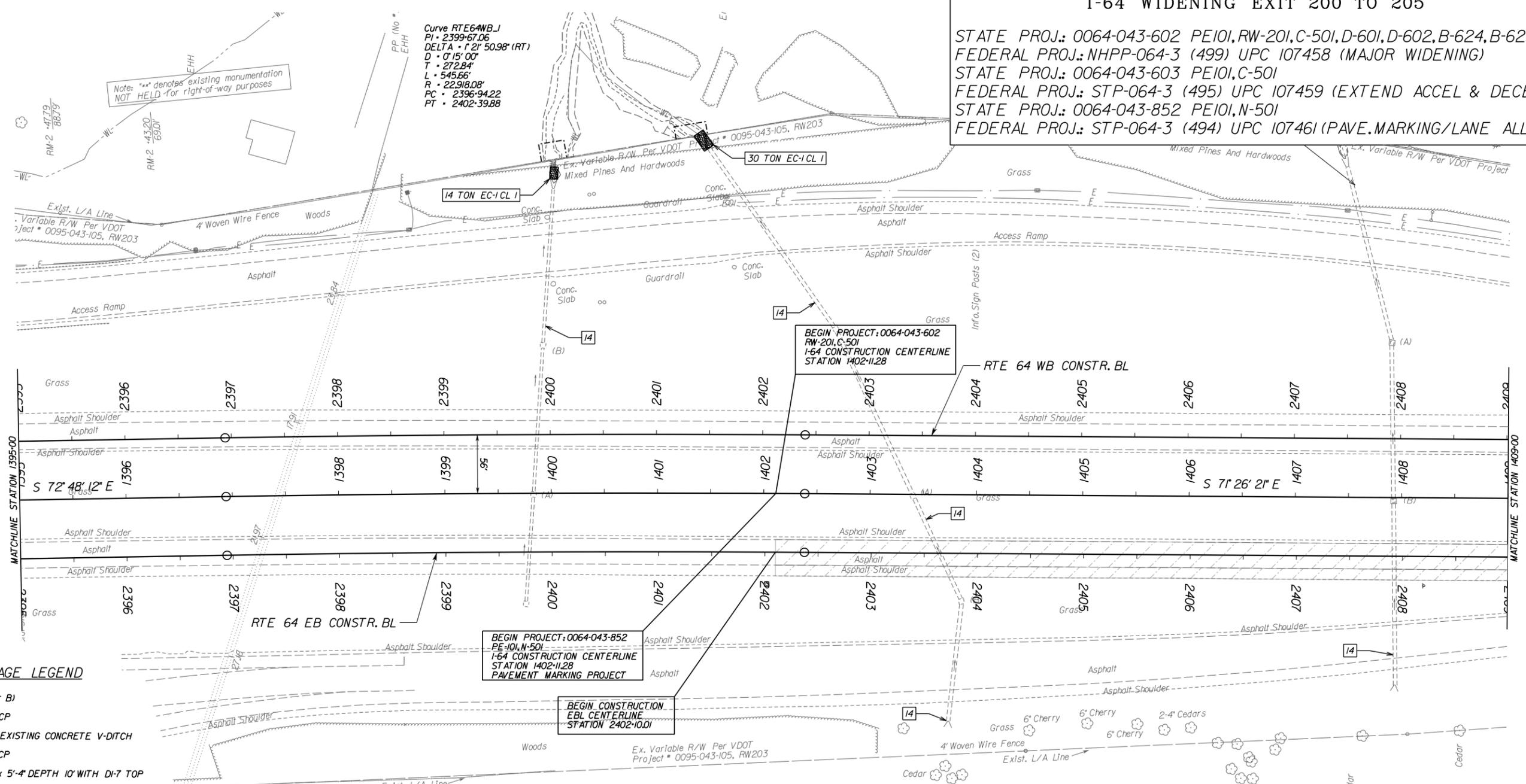
- GUARDRAIL LEGEND**
- 1 ST'D. GR-MGS1 REQ'D.
 - 2 ST'D. GR-MGS2 REQ'D.
 - 3 ST'D. GR-MGS3 REQ'D.
 - 4 ST'D. GR-MGS4 REQ'D.
 - 5 ST'D. GR-2 REQ'D.
 - 6 ST'D. GR-9 REQ'D.
 - 7 ST'D. GR-II REQ'D.
 - 8 ST'D. GR-FOA-2, TY. I REQ'D.
 - 9 ST'D. GR-FOA-2, TY. II REQ'D.
 - 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	PROPOSED
Cantilever Sign Structure	○
ITS CCTV Camera	◐
Cobrahead Light Pole and Luminaire	●
Relocated Existing Light Poles	○



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

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 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72" x 84" H BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72" x 60" H BOX CULVERT @ 12 LF TOTAL 36 LF
- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

GUARDRAIL LEGEND

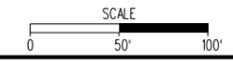
- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- DENOTES CONSTRUCTION LIMITS IN CUTS
- DENOTES CONSTRUCTION LIMITS IN FILLS

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	PROPOSED
Cantilever Sign Structure	○—○
ITS CCTV Camera	○
Cobrahead Light Pole and Luminaire	●
Relocated Existing Light Poles	○

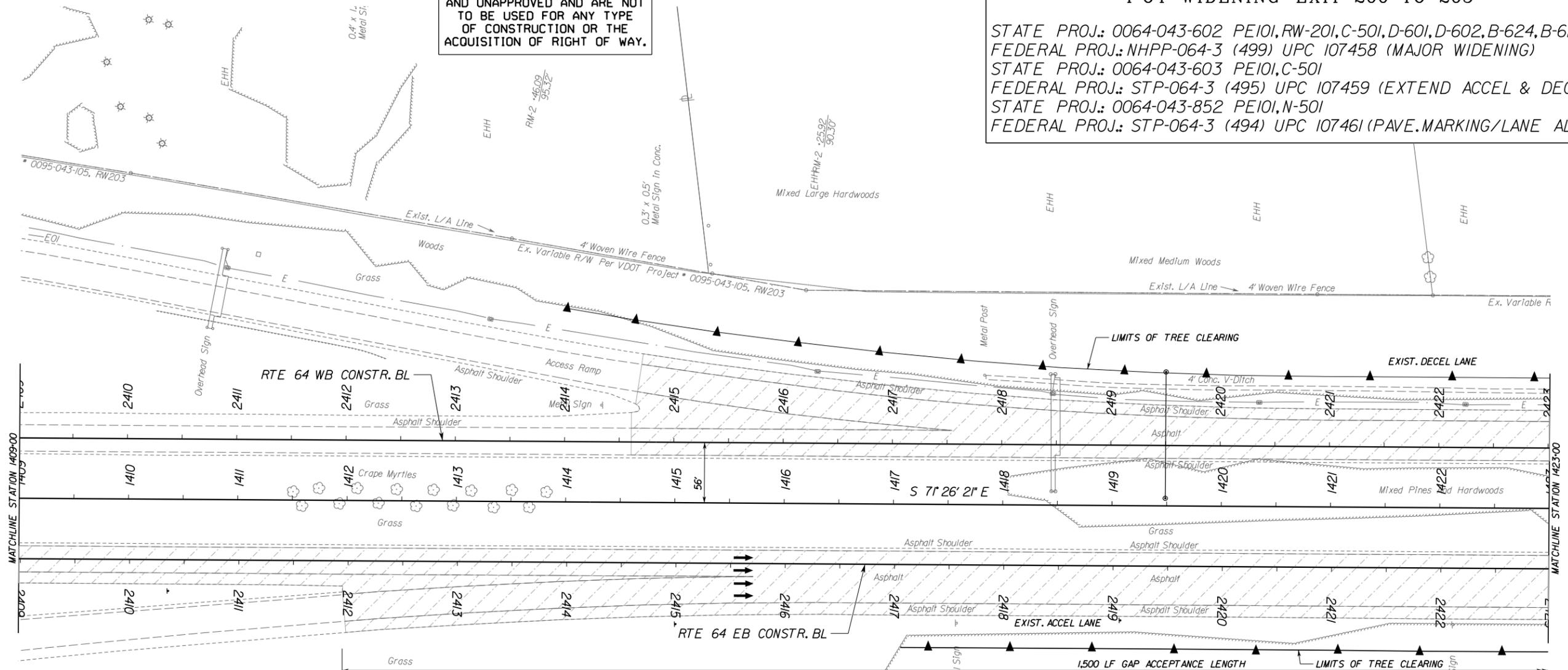
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CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

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 STATE PROJ.: 0064-043-603 PE10I,C-50I
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE10I,N-50I
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE.MARKING/LANE ALLOCATION)

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DRAINAGE LEGEND

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- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
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- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
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- 18 EW-11A
- EW-12 & OUTLET PIPE ASSEMBLY

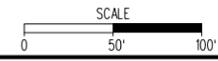
LEGEND

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- F--- DENOTES CONSTRUCTION LIMITS IN FILLS

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-11 REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	



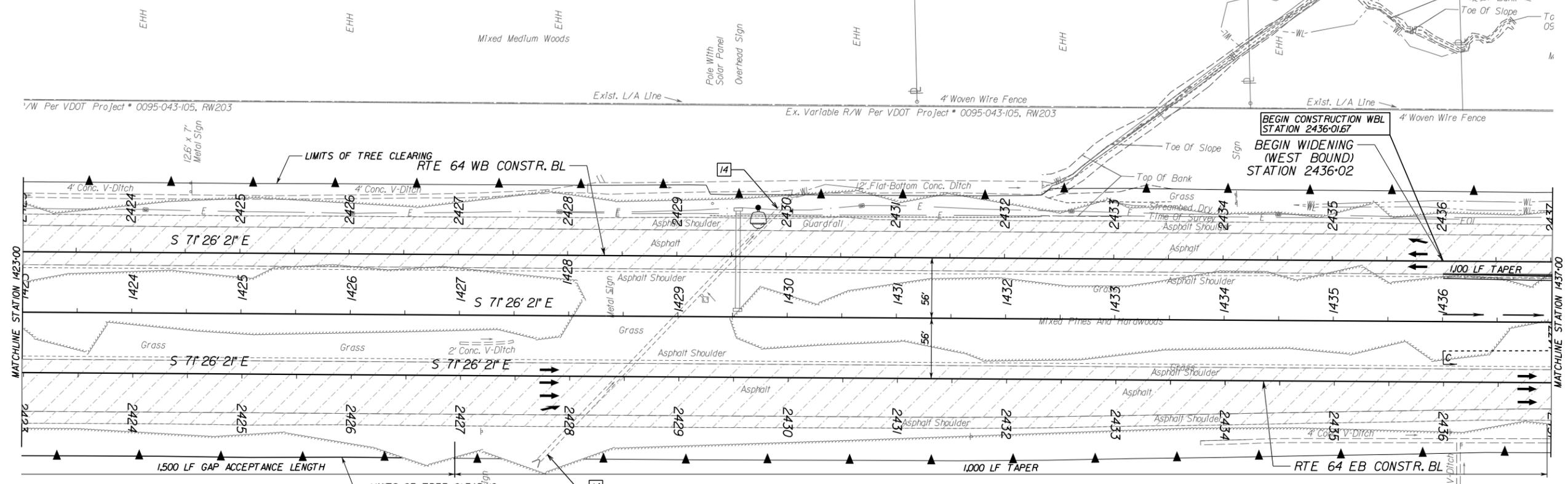
CORMAN CONSTRUCTION **BRANCH CIVIL**
 A JOINT VENTURE

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 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE.MARKING/LANE ALLOCATION)

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.



DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72"W x 8"H BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72"W x 60"H BOX CULVERT @ 12 LF TOTAL 36 LF
- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-11A
- EW-12 & OUTLET PIPE ASSEMBLY

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-11 REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- DENOTES CONSTRUCTION LIMITS IN CUTS
- DENOTES CONSTRUCTION LIMITS IN FILLS



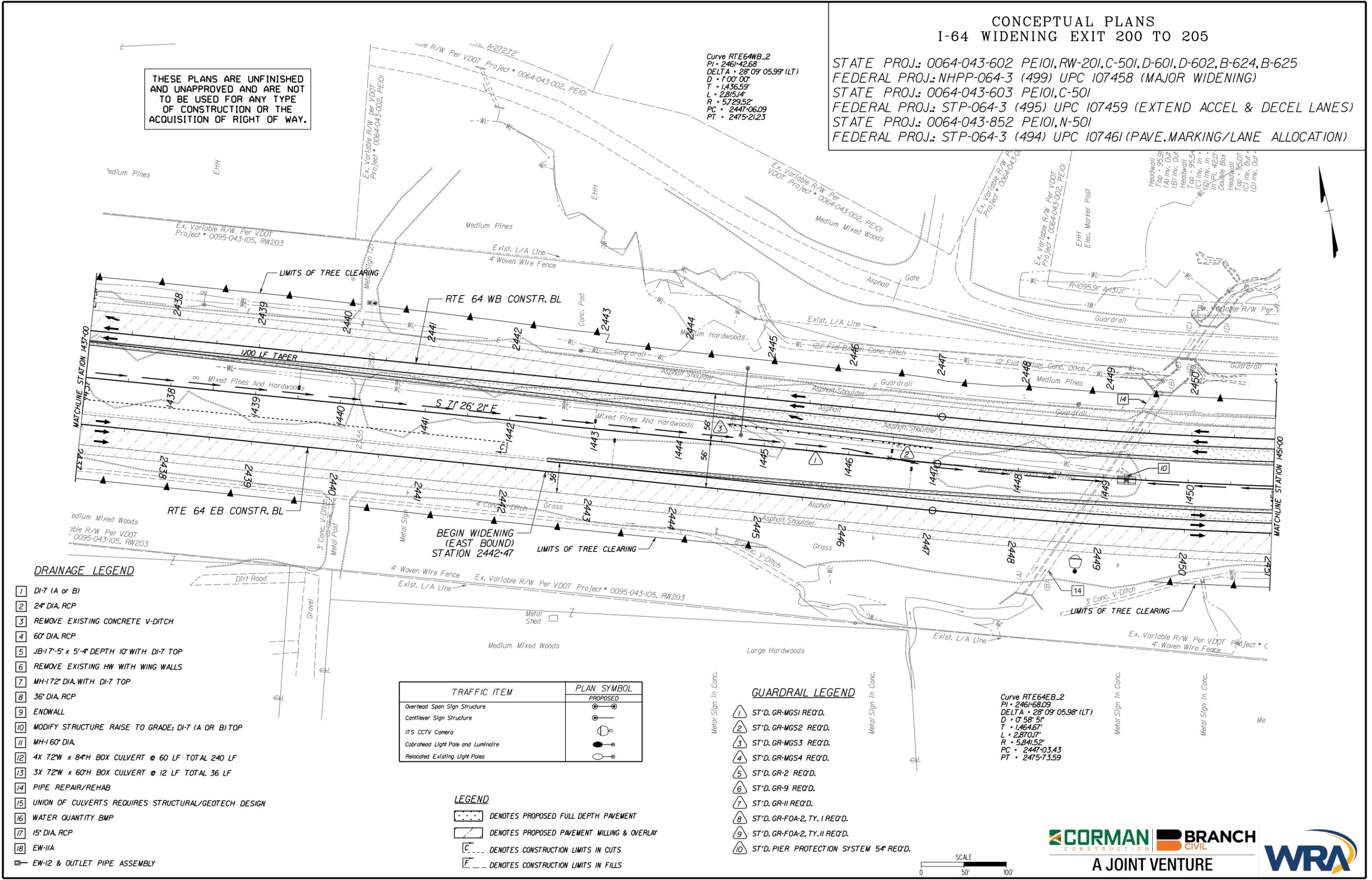
CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101,RW-201,C-501,D-601,D-602,B-624,B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101,C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101,N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

THESE PLANS ARE UNFINISHED
 AND UNAPPROVED AND ARE NOT
 TO BE USED FOR ANY TYPE
 OF CONSTRUCTION OR THE
 ACQUISITION OF RIGHT OF WAY.

Curve RTE64WB_2
 PI - 2461-42.68
 DELTA - 28° 09' 05.99" (LT)
 D - 1'00' 00"
 T - 1,436.59'
 L - 2,815.14'
 R - 5,729.52'
 PC - 2447-06.09
 PT - 2475-21.23

Curve RTE64EB_2
 PI - 2461-68.09
 DELTA - 28° 09' 05.98" (LT)
 D - 0' 58" 51"
 T - 1,464.67'
 L - 2,870.17'
 R - 5,841.52'
 PC - 2447-03.43
 PT - 2475-73.59



DRAINAGE LEGEND

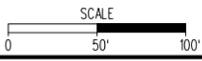
- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72" x 84" BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72" x 60" BOX CULVERT @ 12 LF TOTAL 36 LF
- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

- LEGEND
- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - DENOTES CONSTRUCTION LIMITS IN CUTS
 - DENOTES CONSTRUCTION LIMITS IN FILLS

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-11 REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.



TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

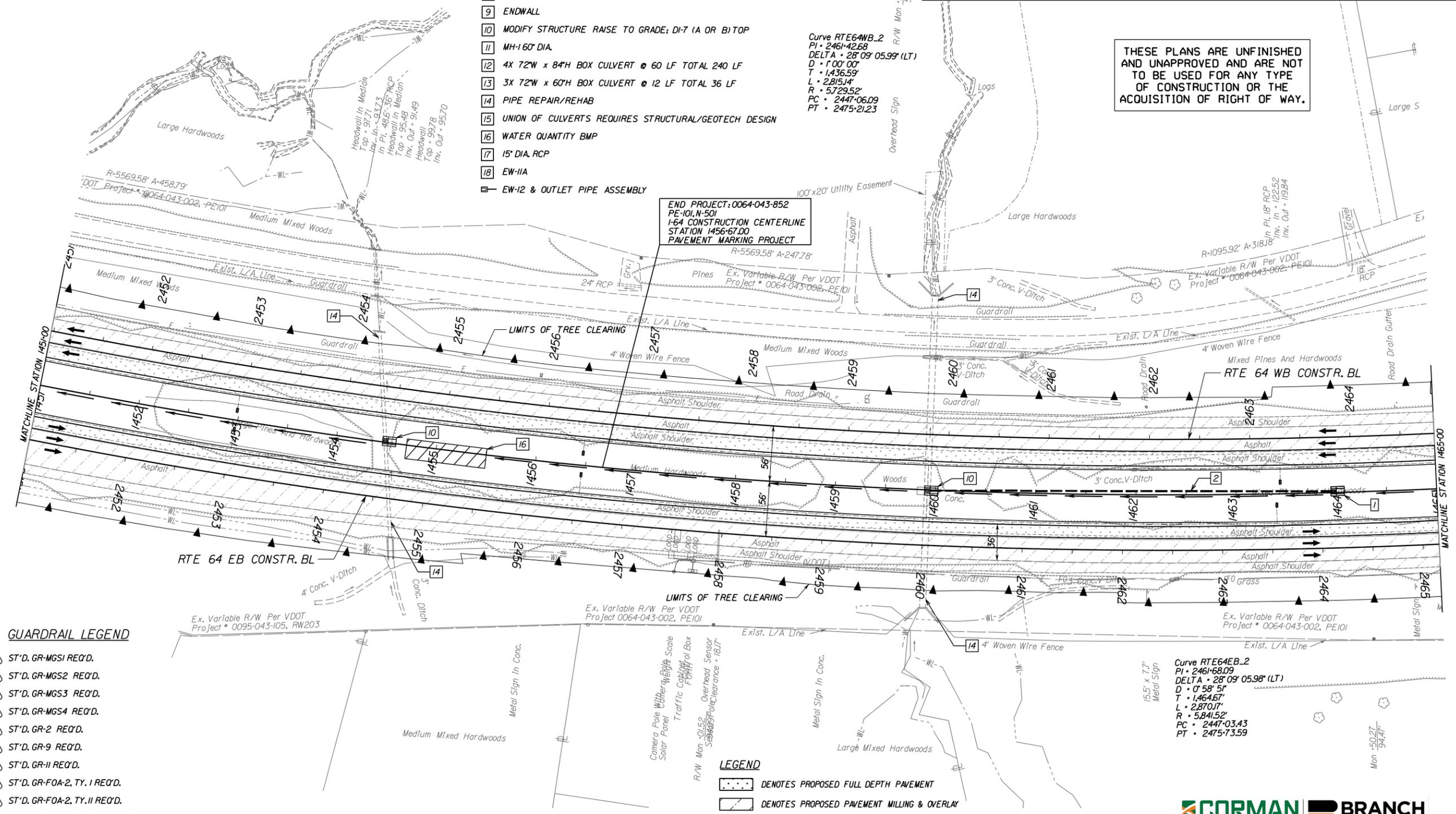
DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
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- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
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- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

**CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205**

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

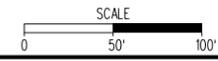


GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54 REQ'D.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- DENOTES CONSTRUCTION LIMITS IN CUTS
- DENOTES CONSTRUCTION LIMITS IN FILLS



Curve RTE64EB-2
 PI • 2461+68.09
 DELTA • 28° 09' 05.98" (LT)
 D • 0' 58' 51"
 T • 1,464.67'
 L • 2,870.17'
 R • 5,841.52'
 PC • 2447+03.43
 PT • 2475+73.59



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

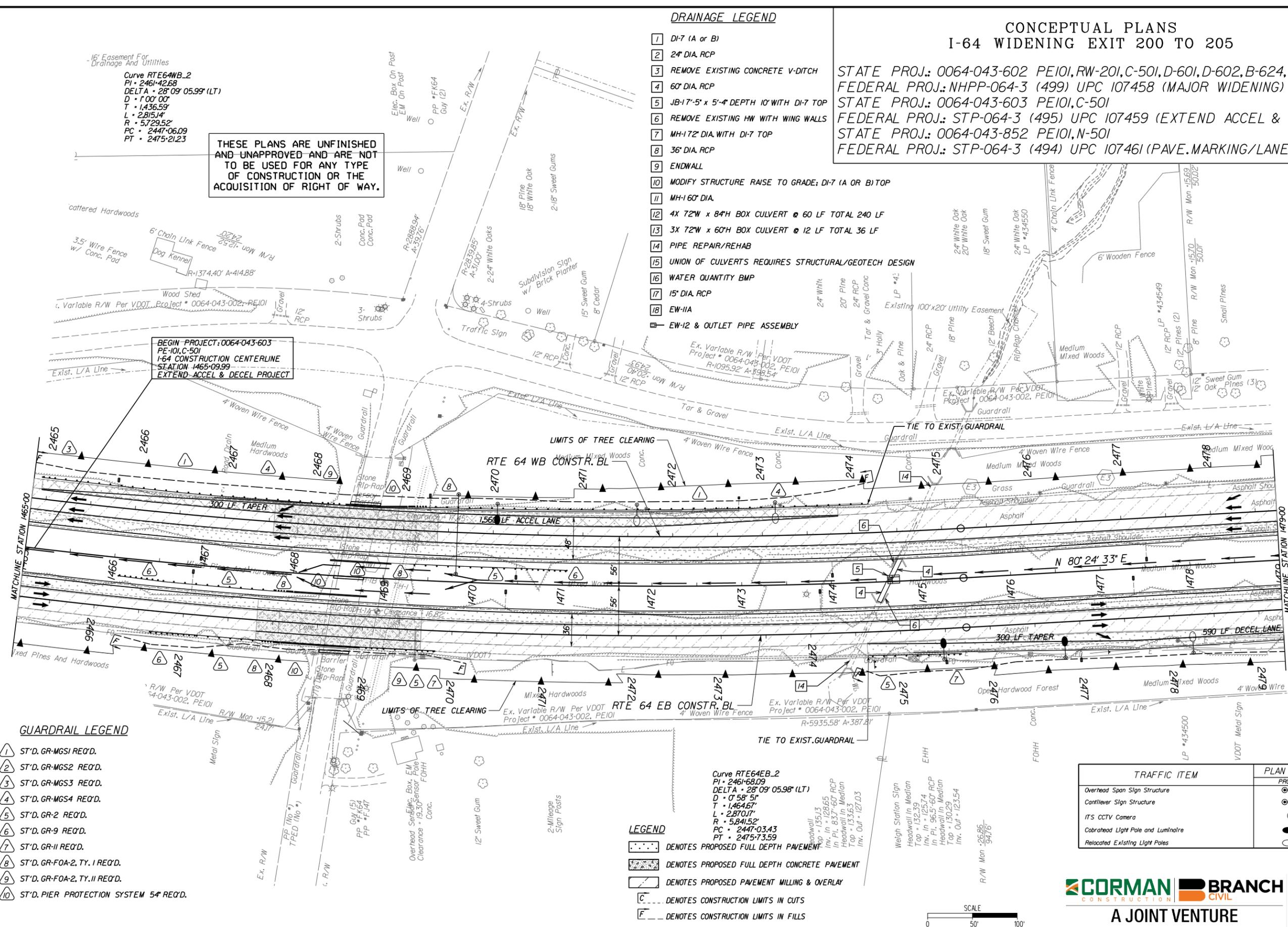
DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-12" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72" x 84" BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72" x 60" BOX CULVERT @ 12 LF TOTAL 36 LF
- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-II & OUTLET PIPE ASSEMBLY

16' Easement For
Drainage And Utilities
 Curve RTE64WB.2
 PI - 2461-42.68
 DELTA - 28° 09' 05.99" (LT)
 D - 1'00' 00"
 T - 1,436.59'
 L - 2,815.14'
 R - 5,729.52'
 PC - 2447-06.09
 PT - 2475-21.23

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ACQUISITION OF RIGHT OF WAY.

BEGIN PROJECT: 0064-043-603
PE-101, C-501
I-64 CONSTRUCTION CENTERLINE
STATION 1465+09.99
EXTEND ACCEL & DECEL PROJECT



GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54 REQ'D.

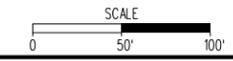
LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED FULL DEPTH CONCRETE PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- C --- DENOTES CONSTRUCTION LIMITS IN CUTS
- F --- DENOTES CONSTRUCTION LIMITS IN FILLS

Curve RTE64EB.2
 PI - 2461-68.09
 DELTA - 28° 09' 05.98" (LT)
 D - 0' 58' 51"
 T - 1,464.67'
 L - 2,870.17'
 R - 5,841.52'
 PC - 2447-03.43
 PT - 2475-73.59

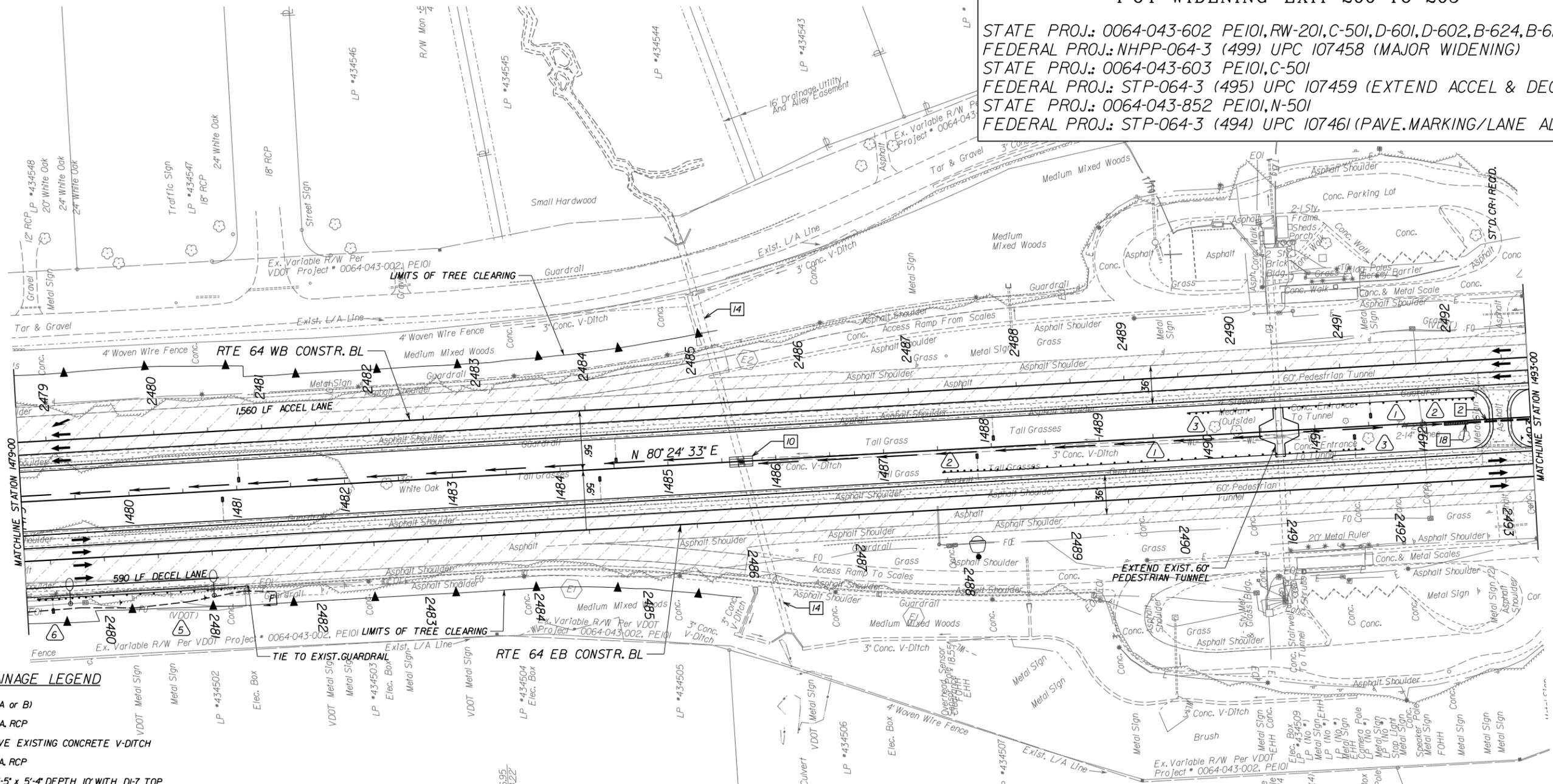
Weight Station Sign
 Headwall In Median
 Top - 132.39
 Inv. In - 128.65
 In. Pl. 83.7'-60" RCP
 Headwall In Median
 Top - 133.63
 Inv. Out - 127.03

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



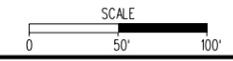
- DRAINAGE LEGEND**
- 1 DI-7 (A or B)
 - 2 24" DIA. RCP
 - 3 REMOVE EXISTING CONCRETE V-DITCH
 - 4 60" DIA. RCP
 - 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
 - 6 REMOVE EXISTING HW WITH WING WALLS
 - 7 MH-172" DIA. WITH DI-7 TOP
 - 8 36" DIA. RCP
 - 9 ENDWALL
 - 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
 - 11 MH-160" DIA.
 - 12 4X 72" x 84" BOX CULVERT @ 60 LF TOTAL 240 LF
 - 13 3X 72" x 60" BOX CULVERT @ 12 LF TOTAL 36 LF
 - 14 PIPE REPAIR/REHAB
 - 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
 - 16 WATER QUANTITY BMP
 - 17 15" DIA. RCP
 - 18 EW-IIA
 - EW-12 & OUTLET PIPE ASSEMBLY

- GUARDRAIL LEGEND**
- 1 ST'D. GR-MGS1 REQ'D.
 - 2 ST'D. GR-MGS2 REQ'D.
 - 3 ST'D. GR-MGS3 REQ'D.
 - 4 ST'D. GR-MGS4 REQ'D.
 - 5 ST'D. GR-2 REQ'D.
 - 6 ST'D. GR-9 REQ'D.
 - 7 ST'D. GR-II REQ'D.
 - 8 ST'D. GR-FOA-2, TY. I REQ'D.
 - 9 ST'D. GR-FOA-2, TY. II REQ'D.
 - 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

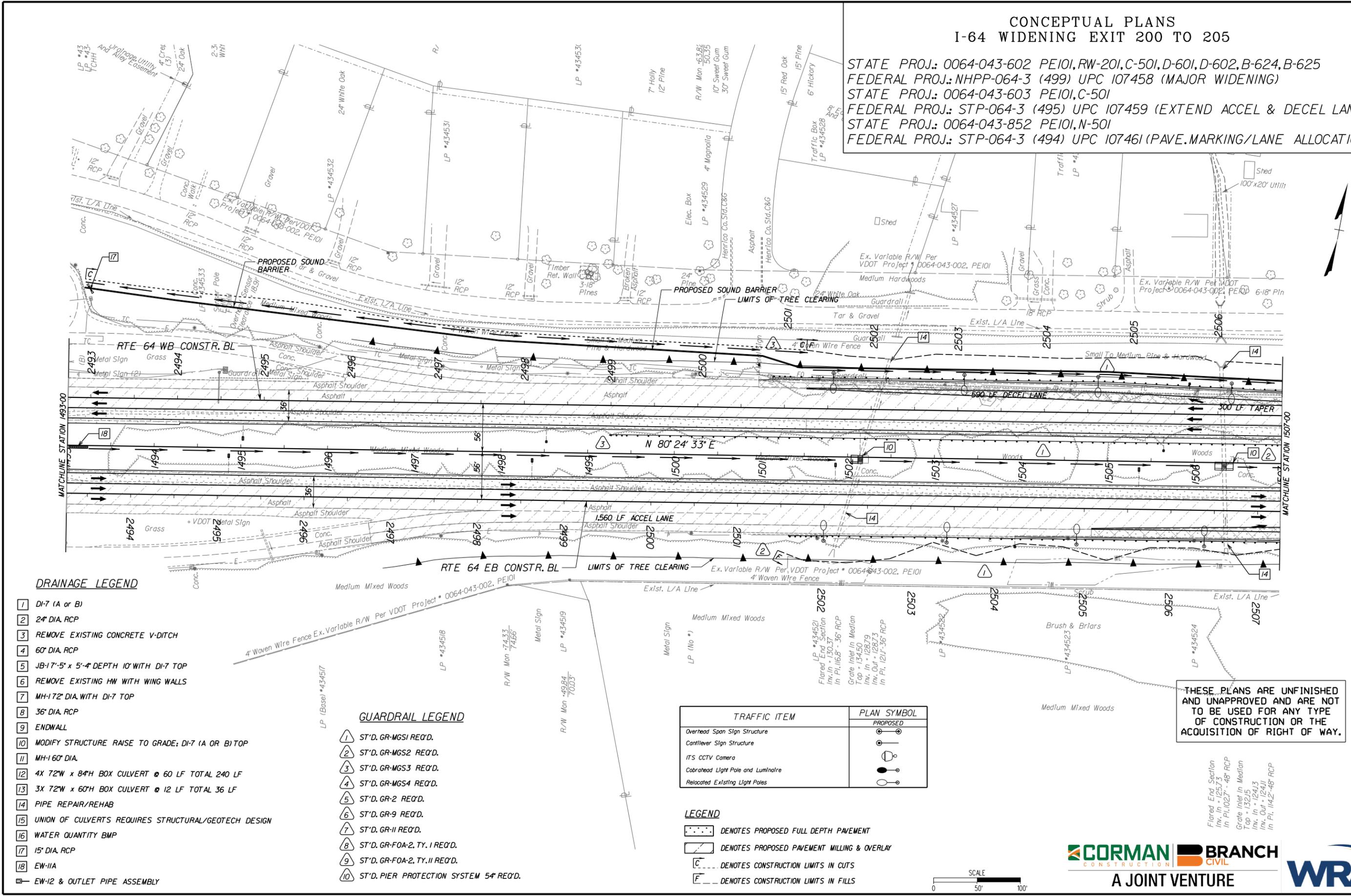
- LEGEND**
- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - C--- DENOTES CONSTRUCTION LIMITS IN CUTS
 - F--- DENOTES CONSTRUCTION LIMITS IN FILLS

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



- DRAINAGE LEGEND**
- 1 DI-7 (A or B)
 - 2 24" DIA. RCP
 - 3 REMOVE EXISTING CONCRETE V-DITCH
 - 4 60" DIA. RCP
 - 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
 - 6 REMOVE EXISTING HW WITH WING WALLS
 - 7 MH-172" DIA. WITH DI-7 TOP
 - 8 36" DIA. RCP
 - 9 ENDWALL
 - 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
 - 11 MH-160" DIA.
 - 12 4X 72" x 84" BOX CULVERT @ 60 LF TOTAL 240 LF
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 - 14 PIPE REPAIR/REHAB
 - 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
 - 16 WATER QUANTITY BMP
 - 17 15" DIA. RCP
 - 18 EW-IIA
 - EW-12 & OUTLET PIPE ASSEMBLY

- GUARDRAIL LEGEND**
- 1 ST'D. GR-MGS1 REQ'D.
 - 2 ST'D. GR-MGS2 REQ'D.
 - 3 ST'D. GR-MGS3 REQ'D.
 - 4 ST'D. GR-MGS4 REQ'D.
 - 5 ST'D. GR-2 REQ'D.
 - 6 ST'D. GR-9 REQ'D.
 - 7 ST'D. GR-11 REQ'D.
 - 8 ST'D. GR-FOA-2, TY. I REQ'D.
 - 9 ST'D. GR-FOA-2, TY. II REQ'D.
 - 10 ST'D. PIER PROTECTION SYSTEM 54' REQ'D.

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

- LEGEND**
- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - DENOTES CONSTRUCTION LIMITS IN CUTS
 - DENOTES CONSTRUCTION LIMITS IN FILLS

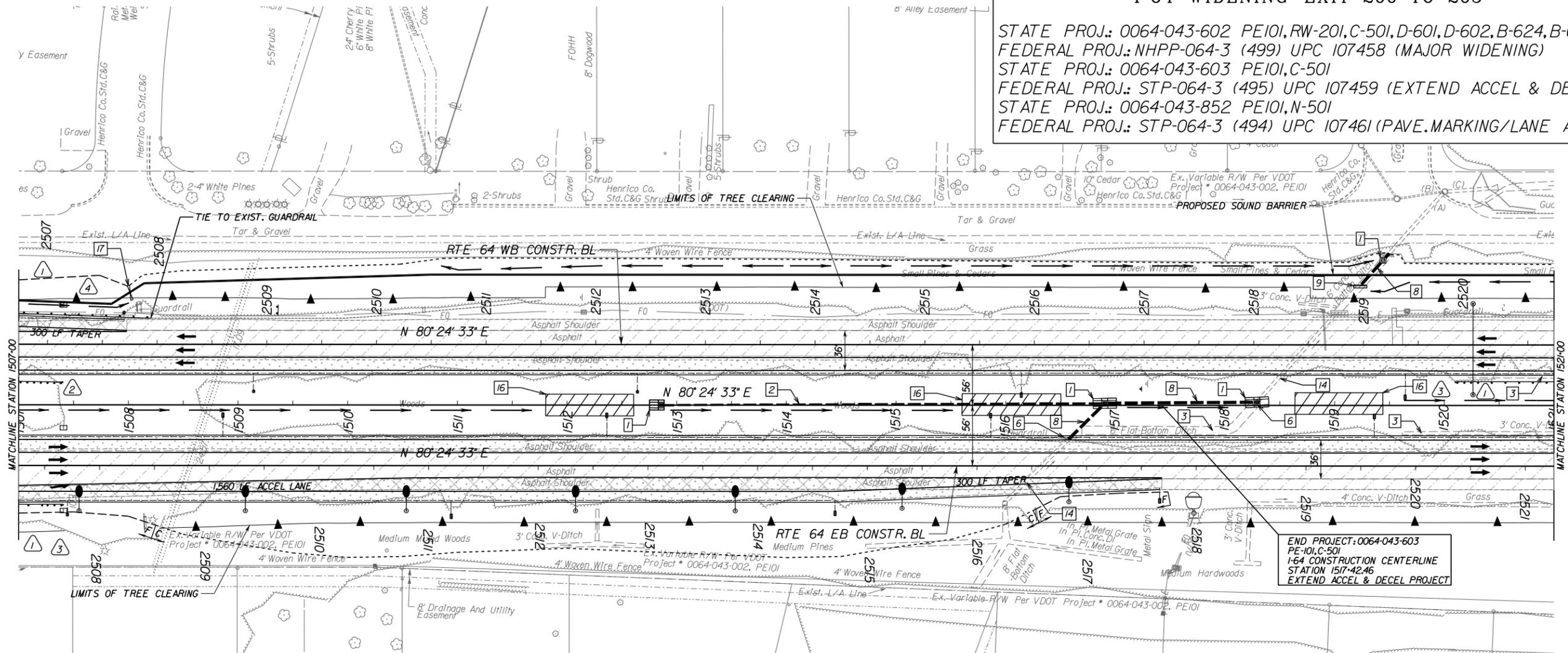
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Flared End Section
 Inv. In = 125.73
 In Pl. 102.7' - 48" RCP
 Grate Inlet in Median
 Top = 132.25
 Inv. In = 124.13
 Inv. Out = 124.11
 In Pl. 114.2' - 48" RCP



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE10I,RW-20I,C-50I,D-60I,D-602,B-624,B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE10I,C-50I
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE10I,N-50I
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
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- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
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- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-11 REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- C --- DENOTES CONSTRUCTION LIMITS IN CUTS
- F --- DENOTES CONSTRUCTION LIMITS IN FILLS

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Canflwyer Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	



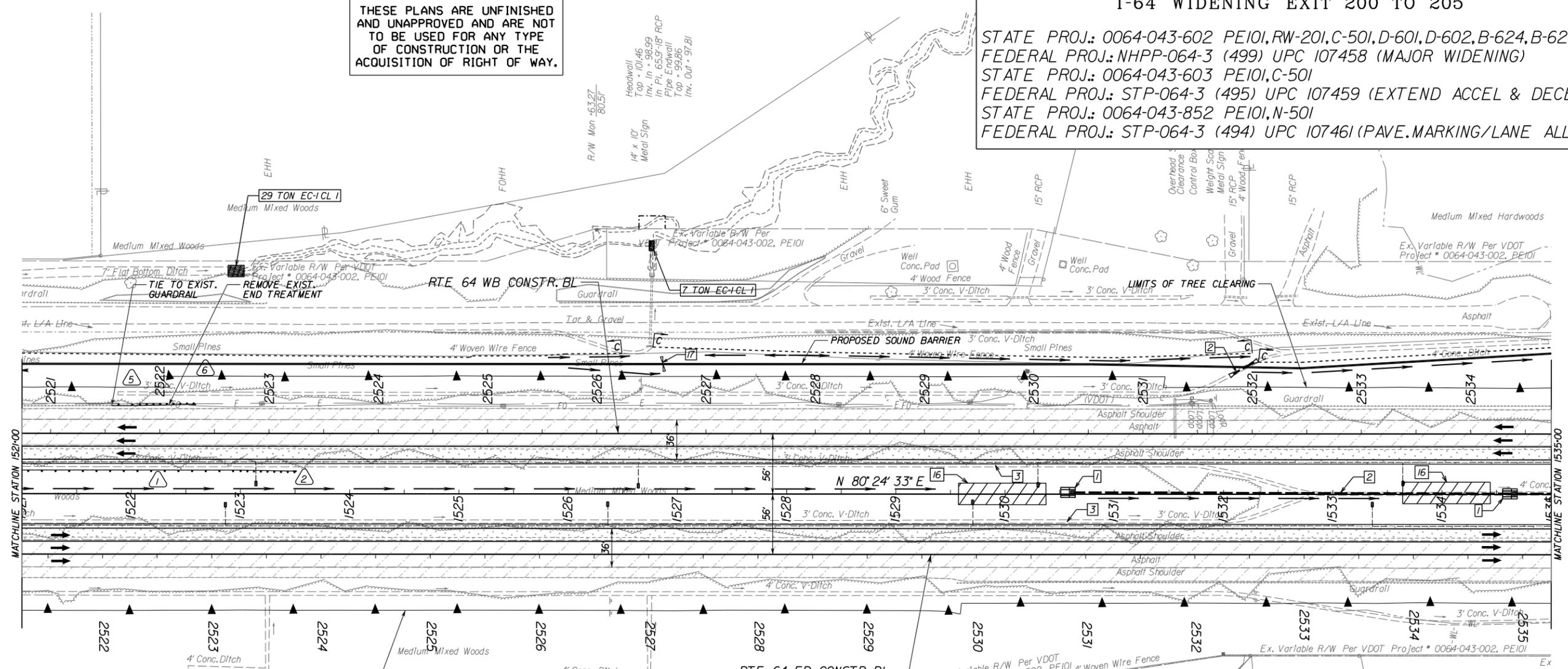
CORMAN **BRANCH**
 CONSTRUCTION CIVIL
 A JOINT VENTURE



CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

THESE PLANS ARE UNFINISHED
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DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
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- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
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- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54' REQ'D.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- DENOTES CONSTRUCTION LIMITS IN CUTS
- DENOTES CONSTRUCTION LIMITS IN FILLS



CORMAN CONSTRUCTION **BRANCH CIVIL**
 A JOINT VENTURE **WRA**

CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

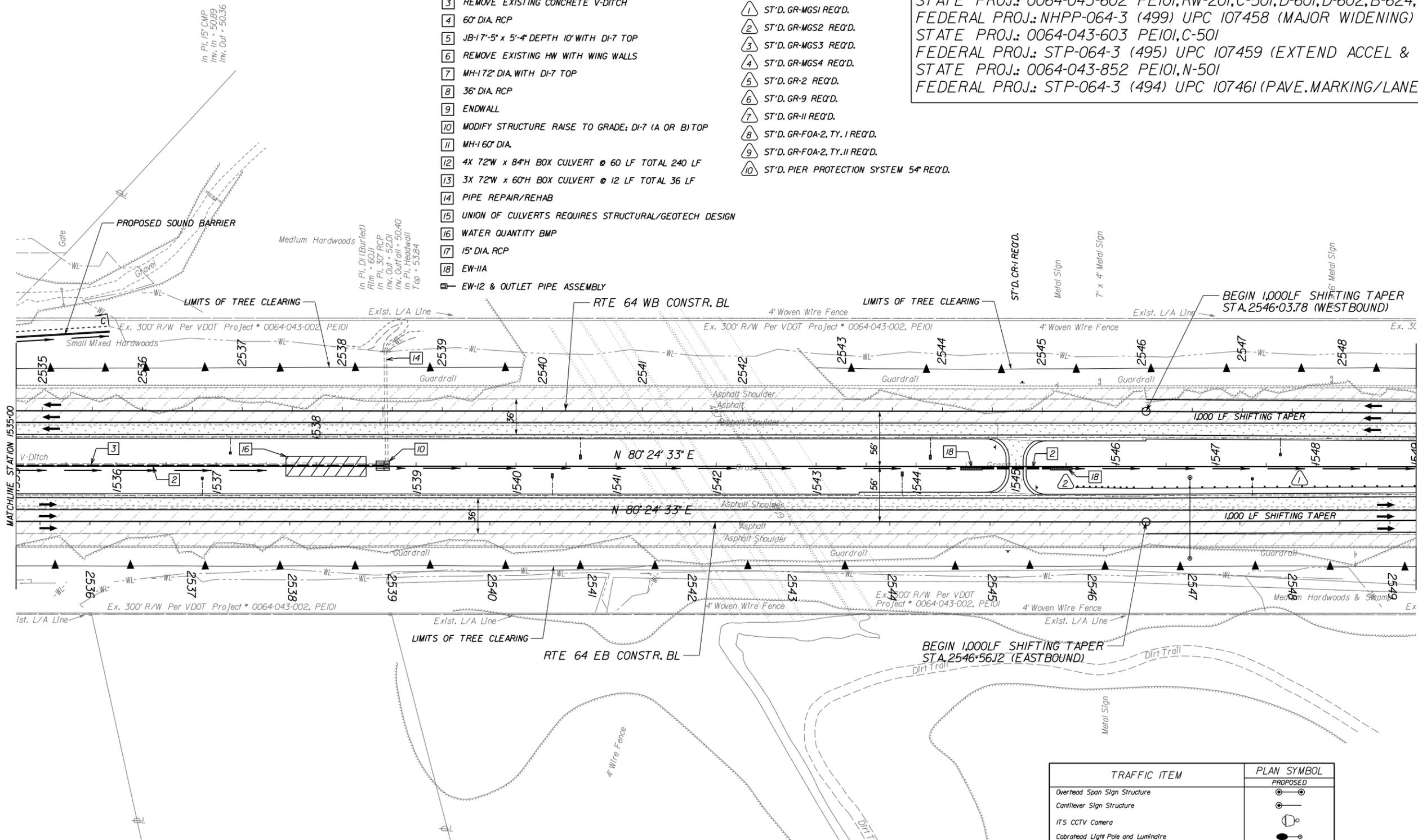
STATE PROJ.: 0064-043-602 PE101, RW-201, C-501, D-601, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
 STATE PROJ.: 0064-043-603 PE101, C-501
 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE101, N-501
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)

DRAINAGE LEGEND

- 1 DI-7 (A or B)
- 2 24" DIA. RCP
- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
- 5 JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72" W x 84" H BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72" W x 60" H BOX CULVERT @ 12 LF TOTAL 36 LF
- 14 PIPE REPAIR/REHAB
- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
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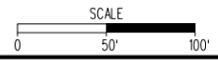


THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION OR THE ACQUISITION OF RIGHT OF WAY.

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- C --- DENOTES CONSTRUCTION LIMITS IN CUTS
- F --- DENOTES CONSTRUCTION LIMITS IN FILLS

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	PROPOSED
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	



CORMAN CONSTRUCTION | **BRANCH** CIVIL
A JOINT VENTURE



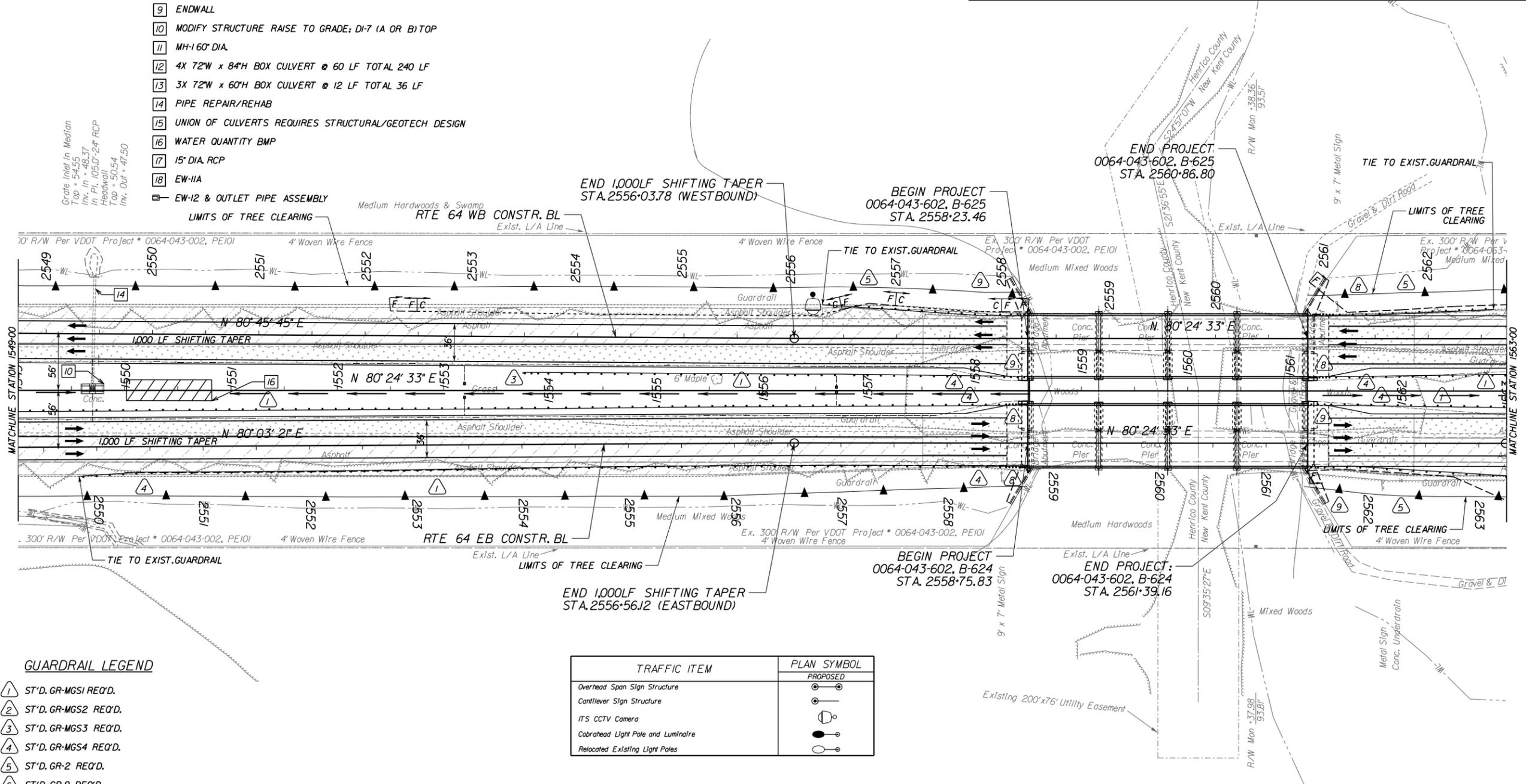
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**CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205**

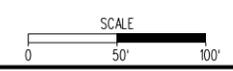
STATE PROJ.: 0064-043-602 PE10I, RW-20I, C-50I, D-60I, D-602, B-624, B-625
 FEDERAL PROJ.: NHPP-064-3 (499) UPC 107458 (MAJOR WIDENING)
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 FEDERAL PROJ.: STP-064-3 (495) UPC 107459 (EXTEND ACCEL & DECEL LANES)
 STATE PROJ.: 0064-043-852 PE10I, N-50I
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



- GUARDRAIL LEGEND**
- 1 ST'D. GR-MGS1 REQ'D.
 - 2 ST'D. GR-MGS2 REQ'D.
 - 3 ST'D. GR-MGS3 REQ'D.
 - 4 ST'D. GR-MGS4 REQ'D.
 - 5 ST'D. GR-2 REQ'D.
 - 6 ST'D. GR-9 REQ'D.
 - 7 ST'D. GR-11 REQ'D.
 - 8 ST'D. GR-FOA-2, TY. I REQ'D.
 - 9 ST'D. GR-FOA-2, TY. II REQ'D.
 - 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

- LEGEND**
- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - DENOTES CONSTRUCTION LIMITS IN CUTS
 - DENOTES CONSTRUCTION LIMITS IN FILLS



CORMAN CONSTRUCTION | **BRANCH CIVIL**
 A JOINT VENTURE

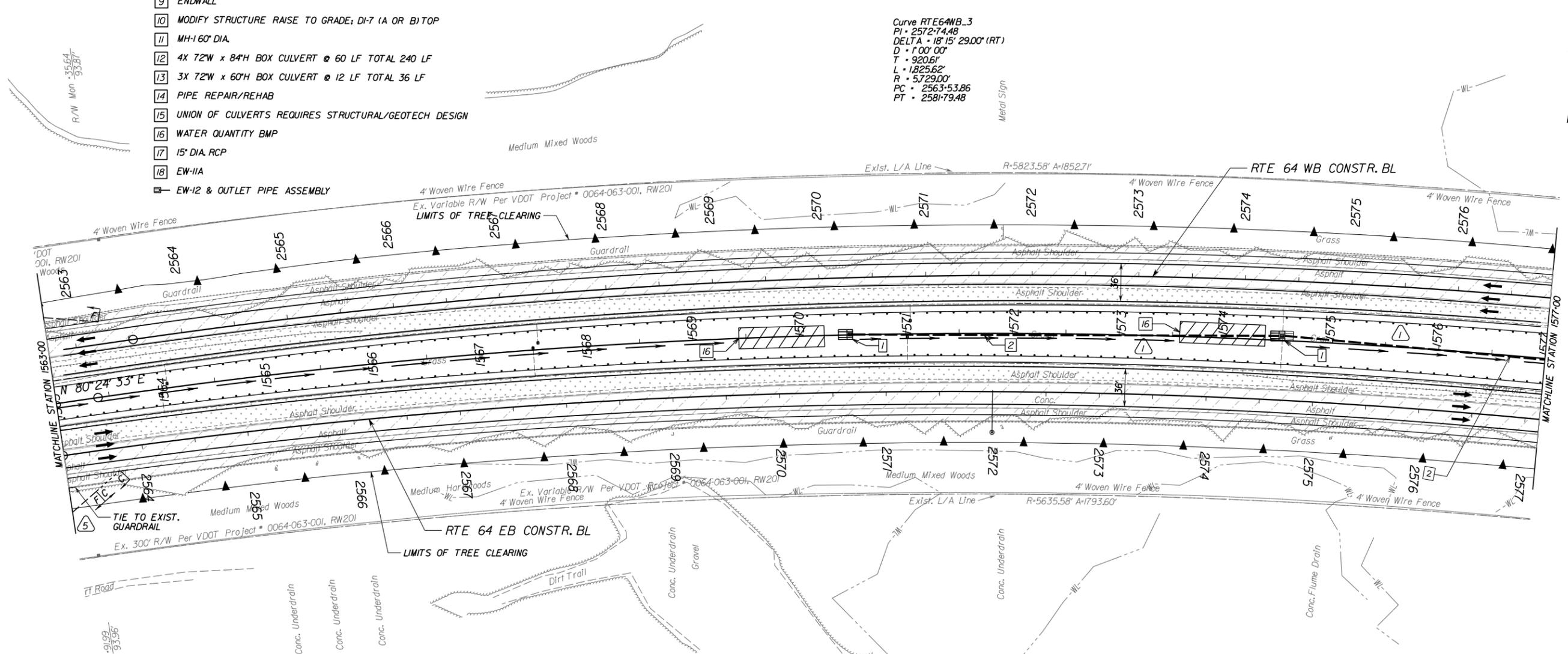
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- 3 REMOVE EXISTING CONCRETE V-DITCH
- 4 60" DIA. RCP
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- 6 REMOVE EXISTING HW WITH WING WALLS
- 7 MH-172" DIA. WITH DI-7 TOP
- 8 36" DIA. RCP
- 9 ENDWALL
- 10 MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
- 11 MH-160" DIA.
- 12 4X 72"W x 84"H BOX CULVERT @ 60 LF TOTAL 240 LF
- 13 3X 72"W x 60"H BOX CULVERT @ 12 LF TOTAL 36 LF
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- 15 UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
- 16 WATER QUANTITY BMP
- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

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 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



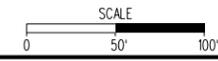
GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
- 5 ST'D. GR-2 REQ'D.
- 6 ST'D. GR-9 REQ'D.
- 7 ST'D. GR-II REQ'D.
- 8 ST'D. GR-FOA-2, TY. I REQ'D.
- 9 ST'D. GR-FOA-2, TY. II REQ'D.
- 10 ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

LEGEND

- [Pattern] DENOTES PROPOSED FULL DEPTH PAVEMENT
- [Pattern] DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- [Symbol] DENOTES CONSTRUCTION LIMITS IN CUTS
- [Symbol] DENOTES CONSTRUCTION LIMITS IN FILLS

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	[Symbol]
Cantilever Sign Structure	[Symbol]
ITS CCTV Camera	[Symbol]
Cobrahead Light Pole and Luminaire	[Symbol]
Relocated Existing Light Poles	[Symbol]



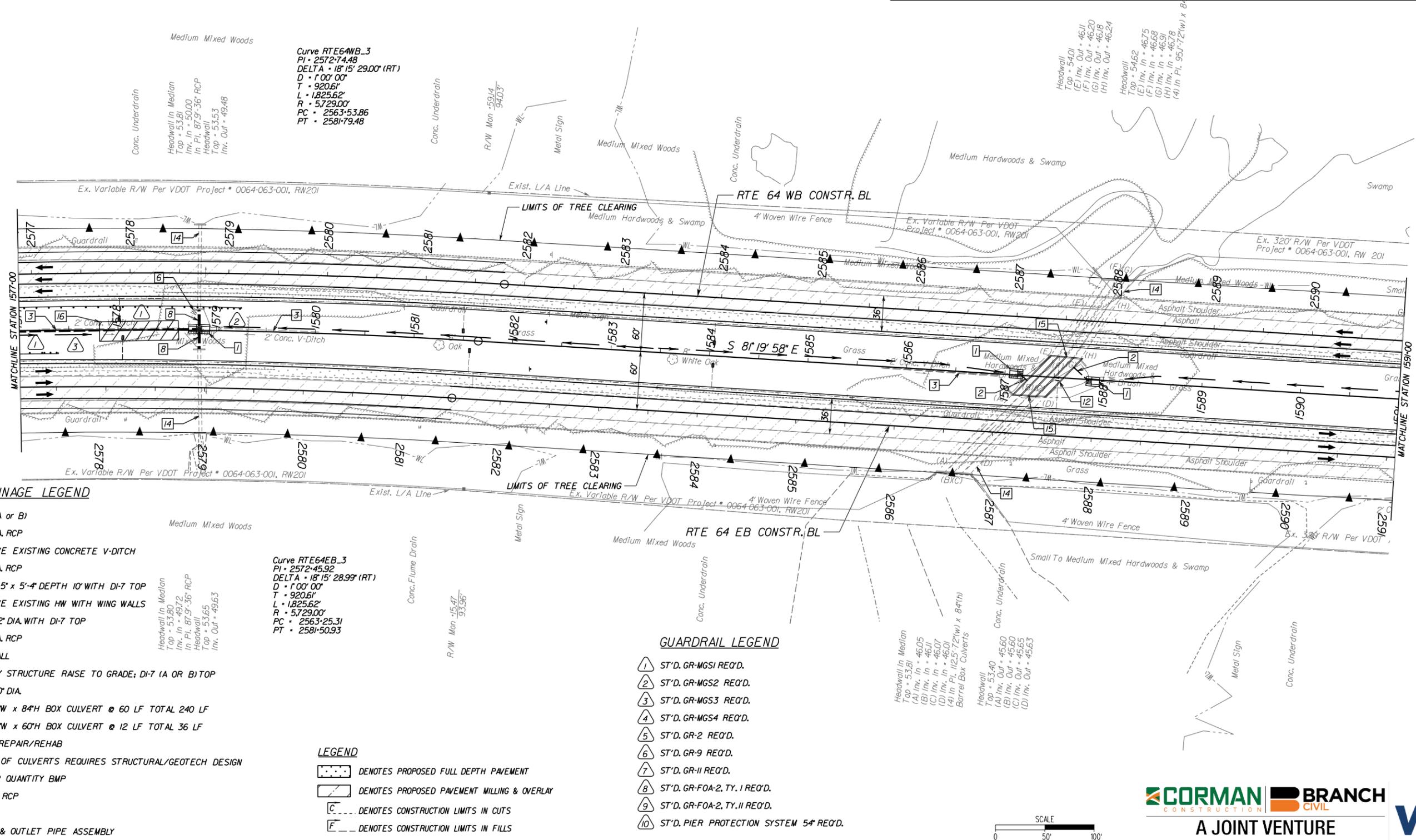
CORMAN CONSTRUCTION | **BRANCH CIVIL**
 A JOINT VENTURE

CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205

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TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

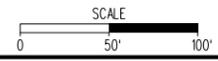
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- DRAINAGE LEGEND**
- DI-7 (A or B)
 - 2" DIA. RCP
 - REMOVE EXISTING CONCRETE V-DITCH
 - 60" DIA. RCP
 - JB-17'-5" x 5'-4" DEPTH 10' WITH DI-7 TOP
 - REMOVE EXISTING HW WITH WING WALLS
 - MH-172" DIA. WITH DI-7 TOP
 - 36" DIA. RCP
 - ENDWALL
 - MODIFY STRUCTURE RAISE TO GRADE; DI-7 (A OR B) TOP
 - MH-160" DIA.
 - 4X 72W x 84H BOX CULVERT @ 60 LF TOTAL 240 LF
 - 3X 72W x 60H BOX CULVERT @ 12 LF TOTAL 36 LF
 - PIPE REPAIR/REHAB
 - UNION OF CULVERTS REQUIRES STRUCTURAL/GEOTECH DESIGN
 - WATER QUANTITY BMP
 - 15" DIA. RCP
 - EW-11A
 - EW-12 & OUTLET PIPE ASSEMBLY

- GUARDRAIL LEGEND**
- ST'D. GR-MGS1 REQ'D.
 - ST'D. GR-MGS2 REQ'D.
 - ST'D. GR-MGS3 REQ'D.
 - ST'D. GR-MGS4 REQ'D.
 - ST'D. GR-2 REQ'D.
 - ST'D. GR-9 REQ'D.
 - ST'D. GR-11 REQ'D.
 - ST'D. GR-FOA-2, TY. I REQ'D.
 - ST'D. GR-FOA-2, TY. II REQ'D.
 - ST'D. PIER PROTECTION SYSTEM 54" REQ'D.

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- DENOTES PROPOSED FULL DEPTH PAVEMENT
 - DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
 - DENOTES CONSTRUCTION LIMITS IN CUTS
 - DENOTES CONSTRUCTION LIMITS IN FILLS



CORMAN CONSTRUCTION **BRANCH CIVIL**
 A JOINT VENTURE **WRA**

DRAINAGE LEGEND

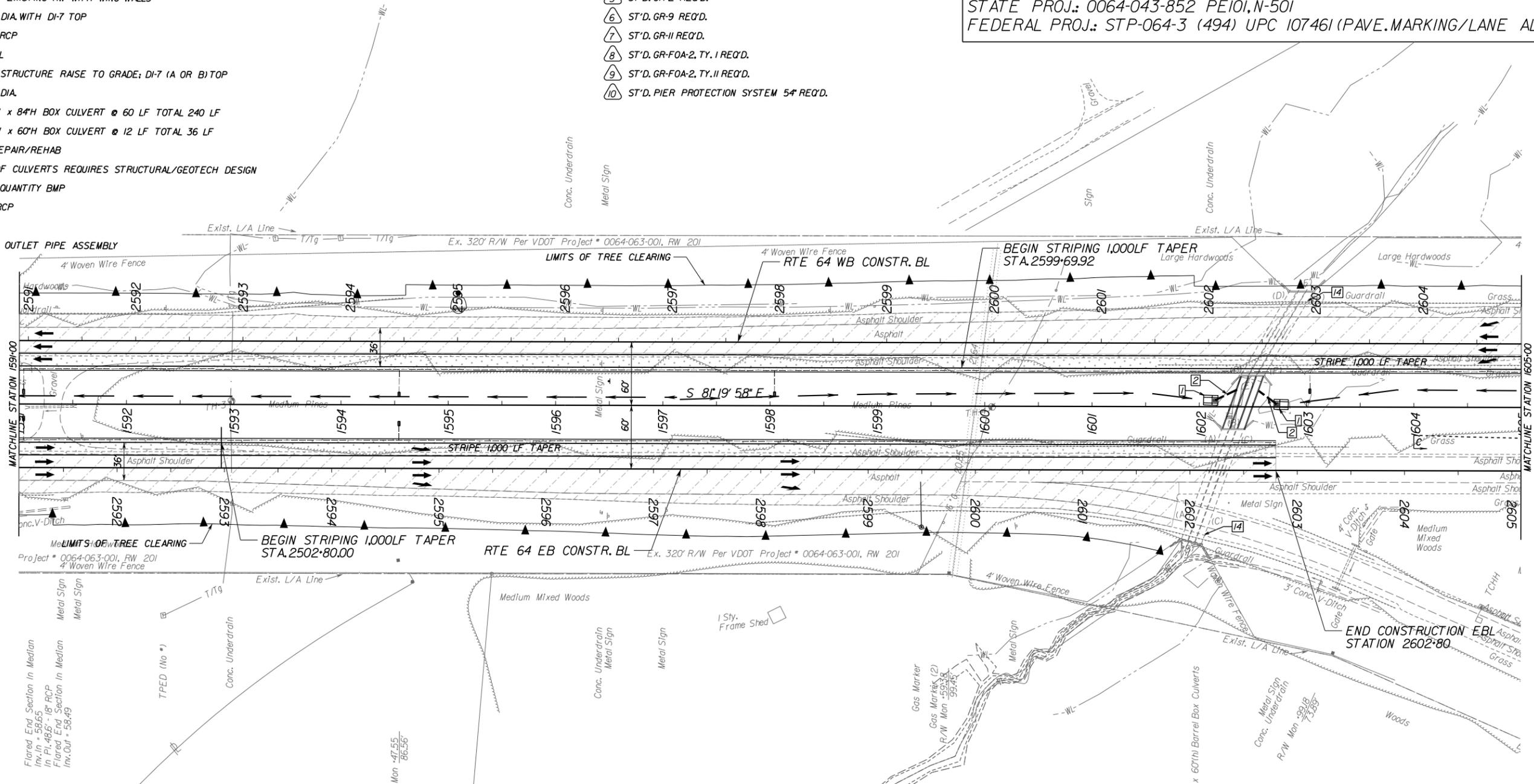
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- 17 15" DIA. RCP
- 18 EW-IIA
- EW-12 & OUTLET PIPE ASSEMBLY

GUARDRAIL LEGEND

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- 5 ST'D. GR-2 REQ'D.
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**CONCEPTUAL PLANS
I-64 WIDENING EXIT 200 TO 205**

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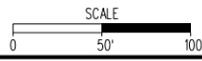
TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Cobrahead Light Pole and Luminaire	
Relocated Existing Light Poles	

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
- DENOTES PROPOSED PAVEMENT MILLING & OVERLAY
- DENOTES CONSTRUCTION LIMITS IN CUTS
- DENOTES CONSTRUCTION LIMITS IN FILLS

Headwall in Median
 Top = 67.12
 (A) Inv. In = 60.56
 (B) Inv. In = 60.53
 (C) Inv. In = 60.56
 (3) In Pl. III:5'-72"(w) x 60"(h) Barrel Box Culverts
 Headwall
 Top = 66.58
 (A) Inv. Out = 59.95
 (B) Inv. Out = 59.97
 (C) Inv. Out = 60.00

Headwall
 Top = 67.20
 In Pl. 45'-24" RCP
 Inv. In = 64.41
 Inv. Out = 63.28
 Headwall
 Top = 66.34



CORMAN CONSTRUCTION **BRANCH CIVIL**
 A JOINT VENTURE **WRA**

GUARDRAIL LEGEND

- 1 ST'D. GR-MGS1 REQ'D.
- 2 ST'D. GR-MGS2 REQ'D.
- 3 ST'D. GR-MGS3 REQ'D.
- 4 ST'D. GR-MGS4 REQ'D.
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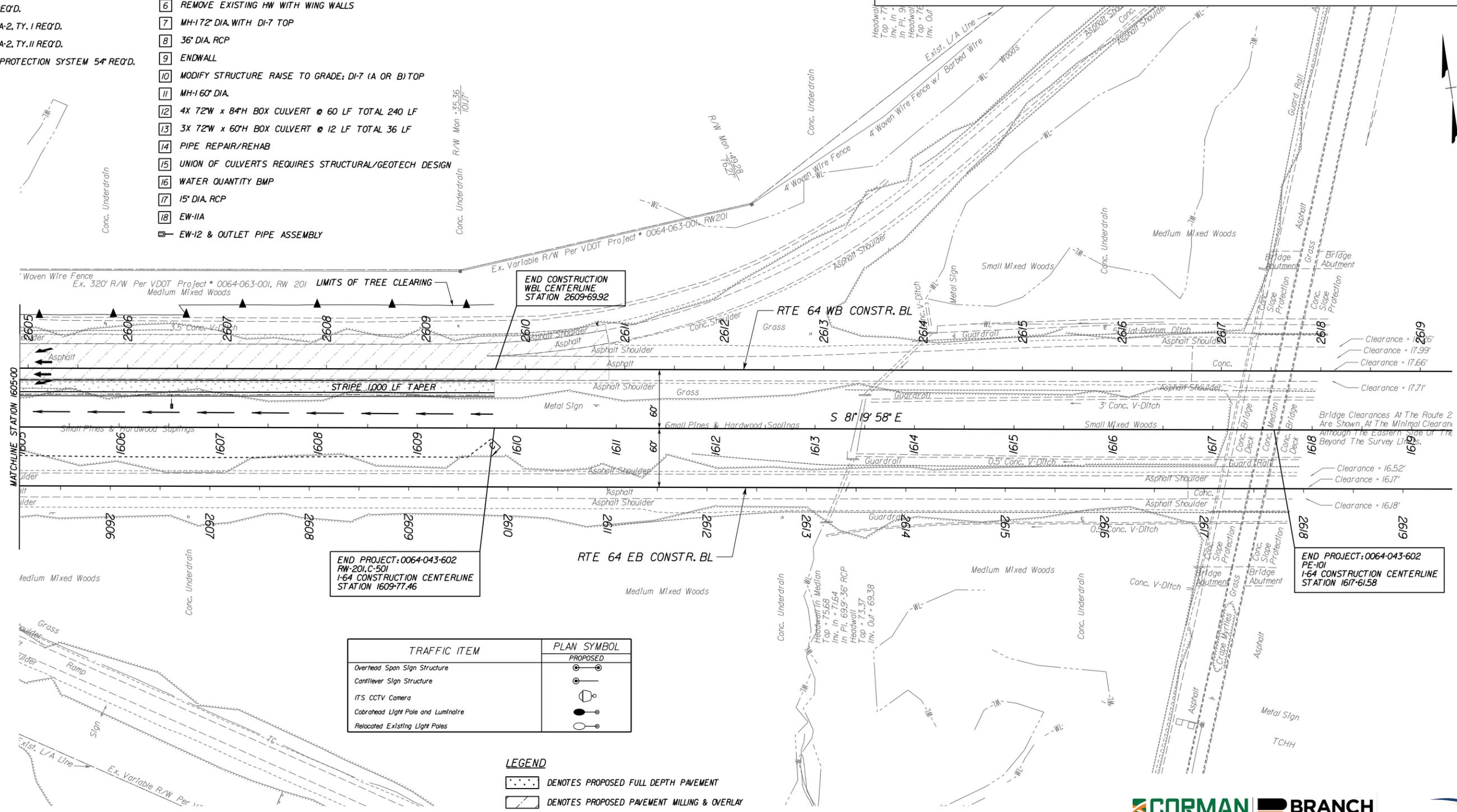
DRAINAGE LEGEND

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 STATE PROJ.: 0064-043-852 PE10I, N-50I
 FEDERAL PROJ.: STP-064-3 (494) UPC 107461 (PAVE. MARKING/LANE ALLOCATION)



MATCHLINE STATION 1605+00

END PROJECT: 0064-043-602
 RW-20I, C-50I
 I-64 CONSTRUCTION CENTERLINE
 STATION 1609+77.46

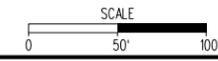
END CONSTRUCTION
 WBL CENTERLINE
 STATION 2609+69.92

END PROJECT: 0064-043-602
 PE-10I
 I-64 CONSTRUCTION CENTERLINE
 STATION 1617+61.58

TRAFFIC ITEM	PLAN SYMBOL
Overhead Span Sign Structure	
Cantilever Sign Structure	
ITS CCTV Camera	
Overhead Light Pole and Luminaire	
Relocated Existing Light Poles	

LEGEND

- DENOTES PROPOSED FULL DEPTH PAVEMENT
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CORMAN CONSTRUCTION **BRANCH CIVIL**
 A JOINT VENTURE **WRA**

4.2.3 | Conceptual Bridge Plans



STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE	PROJECT
NBIS Number:	00000000012702 00000000012703	64	0064-043-602, B624, B625
Federal Oversight Code:	F0	UPC No.	107458
		FHWA Construction and Scour Code:	X081-S8

DESIGN EXCEPTION(S):

None.

GENERAL NOTES:

The original approved sheet, including original signatures, is filed in the VDOT Central Office. Any misuse of electronic files, including scanned signatures is illegal. Violators will be prosecuted to the full extent of the applicable laws.

Width: WBL and EBL 58'-0" face-to-face of curb.

Span layout: WBL and EBL 66'-8" - 65'-0" - 65'-0" - 66'-8" prestressed concrete beam spans

Capacity: HL-93 loading for widening beams and substructure. HS20-44 loading and alternate military loading for existing beams and substructure.

Drainage area: 171 sq. mi.

Specifications:

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2016.

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014; and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2008; including all current revisions.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Bridge No. of existing bridge WBL is 2901 and EBL is 2900. Plan No. for WBL and EBL is 166-21.

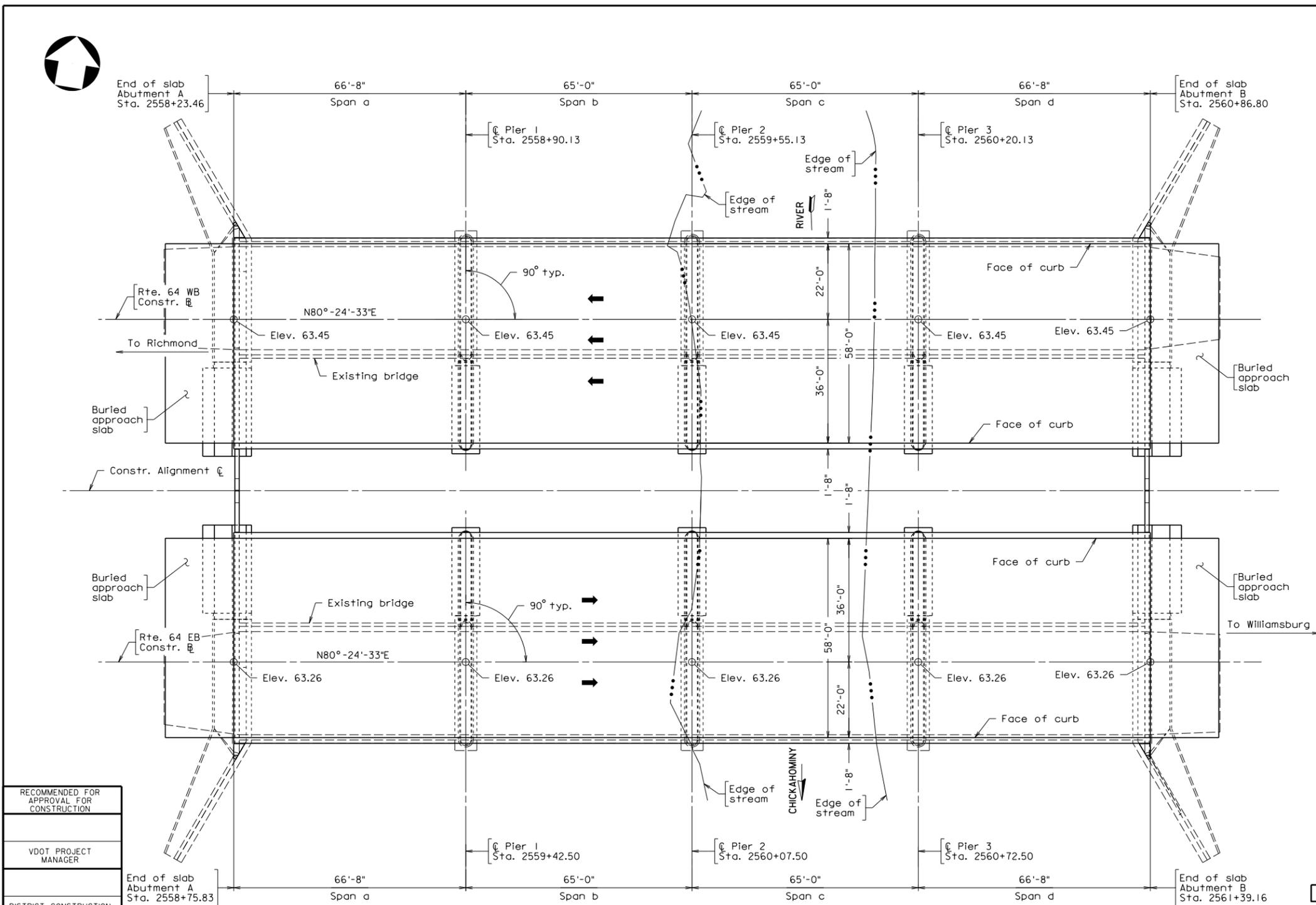


COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSED BRIDGE WIDENING ON
RTE. 1-64 OVER
CHICKAHOMINY RIVER
HENRICO AND NEW KENT CO. LINE
1.0 MI E. OF RTE. 33
PROJ. 0064-043-602, B624, B625

Recommended for Approval: _____ Date _____
Corman-Branch Joint Venture

Approved: _____ Date _____
Chief Engineer

Date: June, 20, 2017 © 2017, Commonwealth of Virginia Sheet 1 of 7



PLAN

Note:
Dimensions and elevations indicated on this sheet are taken from "As-Built" drawing dated September 1966. Final bridge dimensions, stations and elevations may be adjusted during verification review of bridge survey.

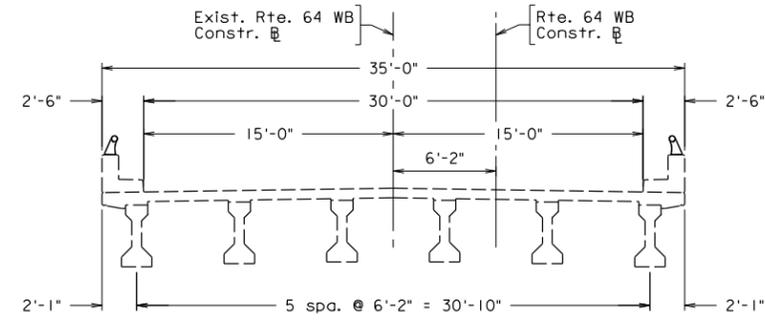
RECOMMENDED FOR APPROVAL FOR CONSTRUCTION
VDOT PROJECT MANAGER
DISTRICT CONSTRUCTION MANAGER
WHITMAN REQUARDT & ASSOCIATES RICHMOND, VA STRUCTURAL ENGINEER
PLANS BY:
COORDINATED:
SUPERVISED:
DESIGNED:
DRAWN:
CHECKED:

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

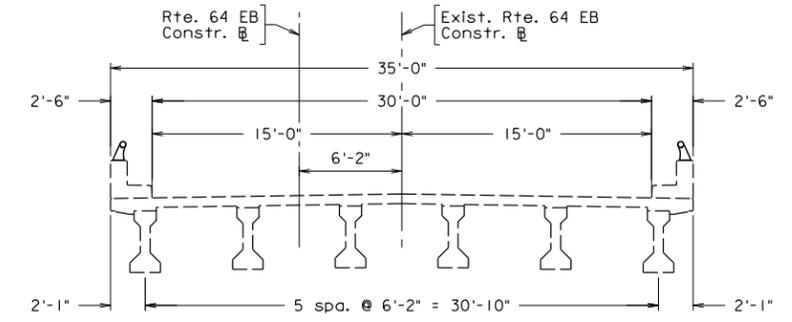
No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

Scale: 1/16" = 1'-0" unless otherwise noted.

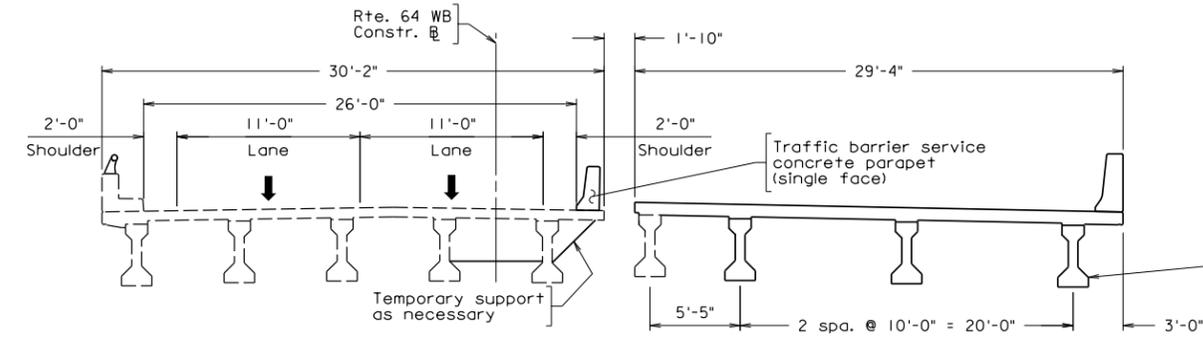
STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE PROJECT	3
		64 0064-043-602, B624, B625	



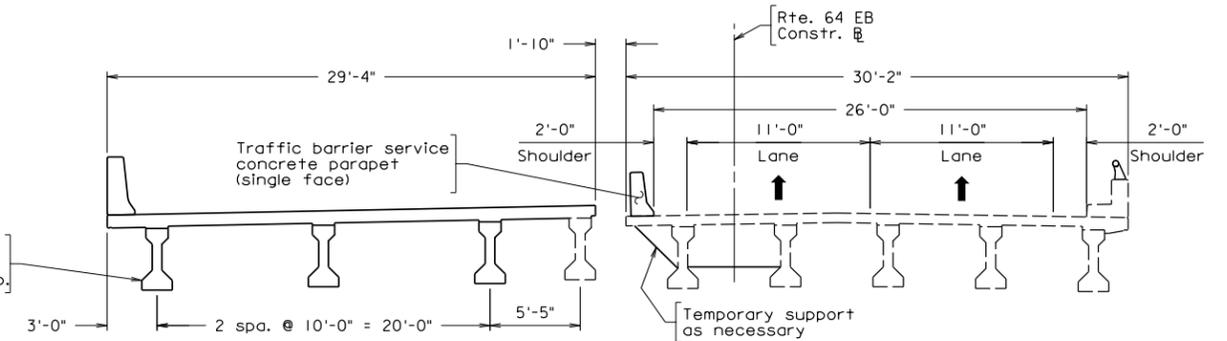
EXISTING



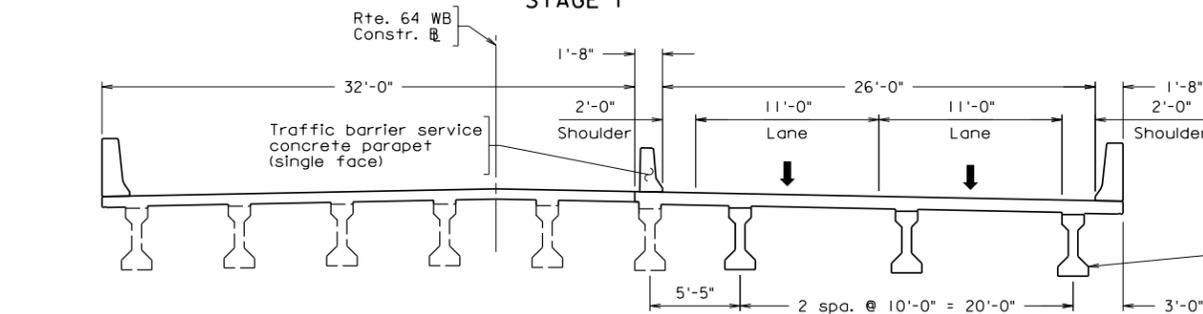
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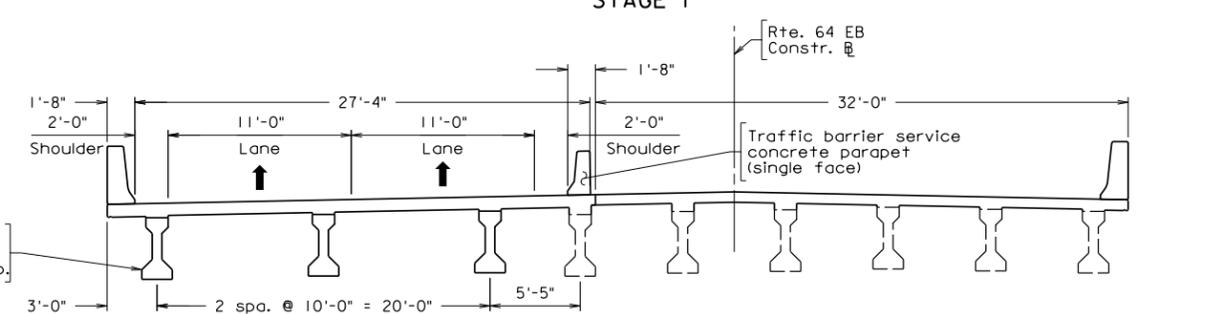
STAGE I



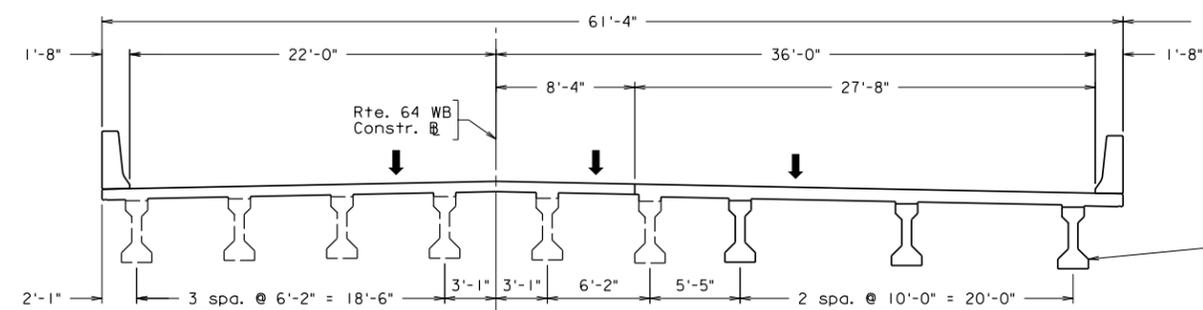
STAGE I



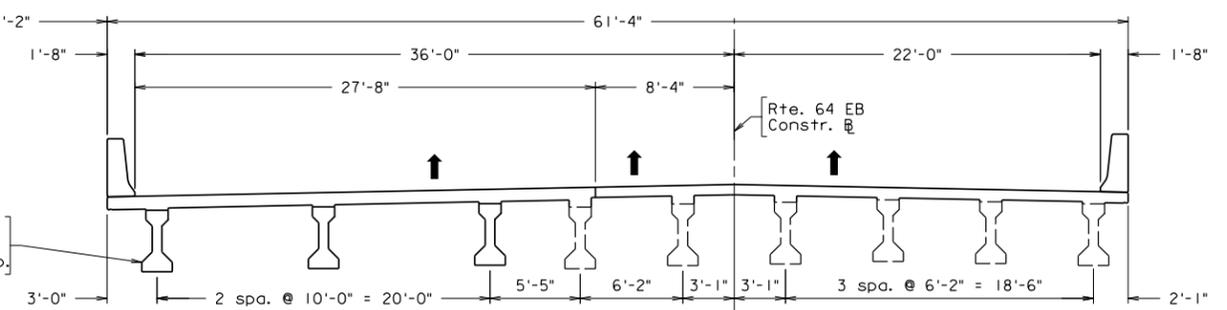
STAGE II



STAGE II



FINAL



FINAL

SEQUENCE OF CONSTRUCTION

Notes:

Contractor shall disconnect existing diaphragms between existing exterior beam and closest existing interior beam prior to jacking exterior beam for work in Stage I. Contractor shall ensure proper bracing of exterior beam during jacking.

The five beams in Stage II shall be jacked and blocked together when performing beam seat repairs and bearing replacements.

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES
RICHMOND, VA
STRUCTURAL ENGINEER



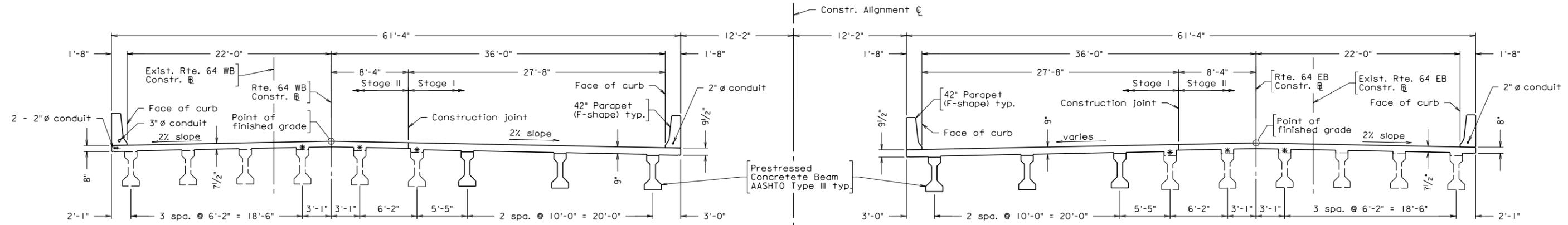
Scale: 3/16" = 1'-0" unless otherwise noted.

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
SEQUENCE OF CONSTRUCTION			
No.	Description	Date	Designed: WRA Drawn: WRA Checked: WRA
			Date: Jun, 2017
			Plan No.
			Sheet No. 3 of 7

STATE	FEDERAL AID		STATE		SHEET NO.
ROUTE	PROJECT		ROUTE	PROJECT	
VA.			64	0064-043-602, B624, B625	4

Note:
 * Beam bolsters shall be reinforced as necessary.



TRANSVERSE SECTION



WHITMAN REQUARDT & ASSOCIATES
 RICHMOND, VA
 STRUCTURAL ENGINEER

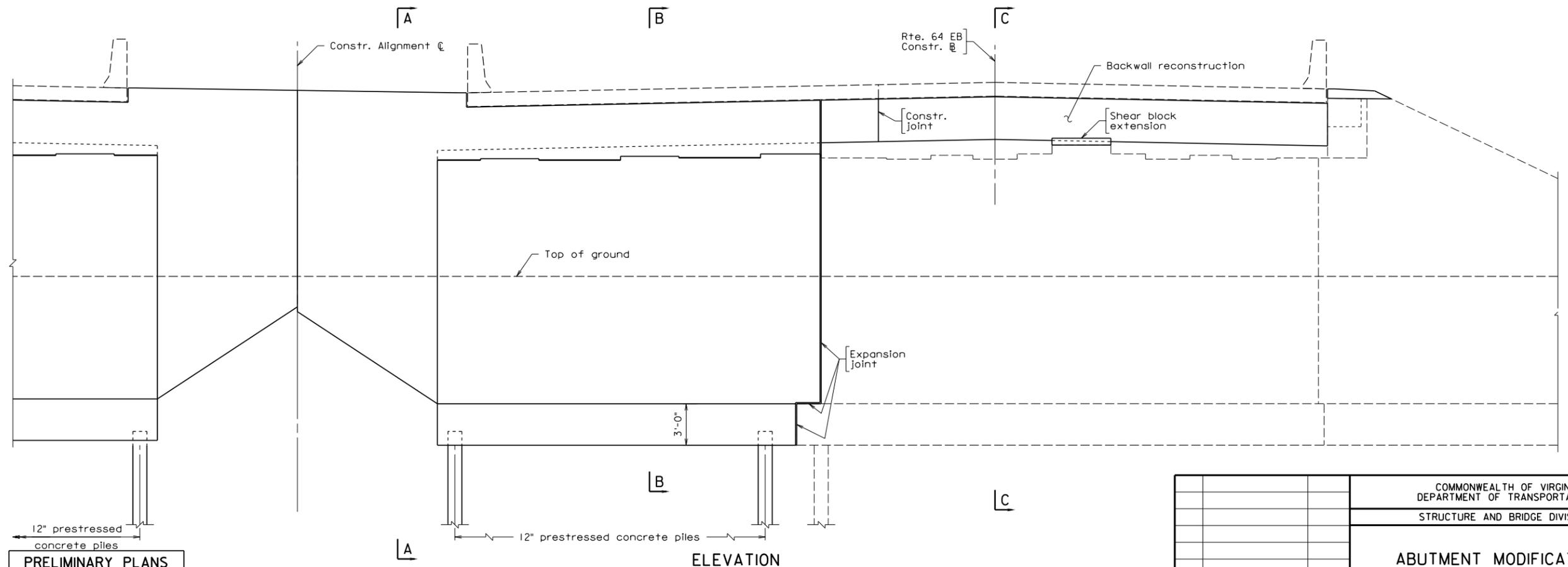
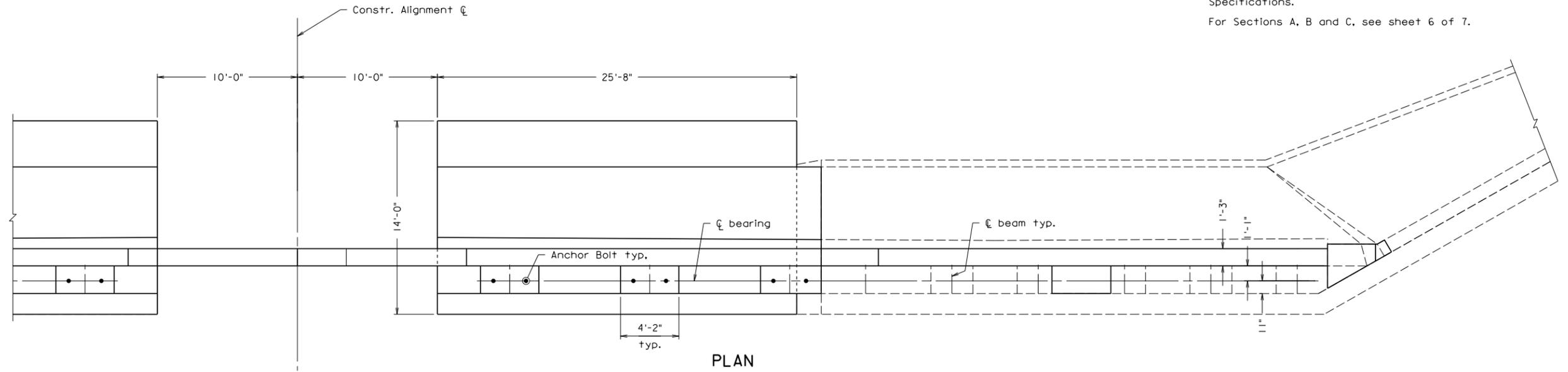
PRELIMINARY PLANS
 THESE PLANS NOT TO BE USED
 FOR CONSTRUCTION

Scale: 3/16" = 1'-0" unless otherwise noted.

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION		STRUCTURE AND BRIDGE DIVISION	
TRANSVERSE SECTION			
No.	Description	Date	Revisions
Designed: WRA	Drawn: WRA	Checked: WRA	Date: Jun, 2017
Plan No.	Sheet No.	4 of 7	

Note:
Widening shall be in accordance with Section 412 of the Specifications.
For Sections A, B and C, see sheet 6 of 7.



12" prestressed concrete piles

PRELIMINARY PLANS
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

EBL and partial WBL Abutment B shown.
WBL Abutment B and EBL Abutment A similar opposite hand.
WBL Abutment A similar.

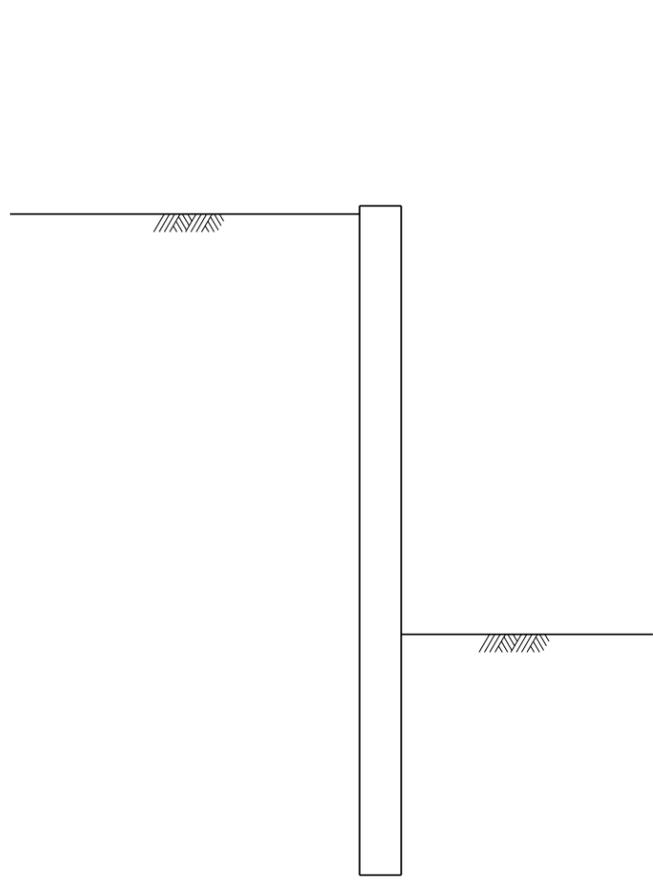
Scale: 1/4" = 1'-0" unless otherwise noted.

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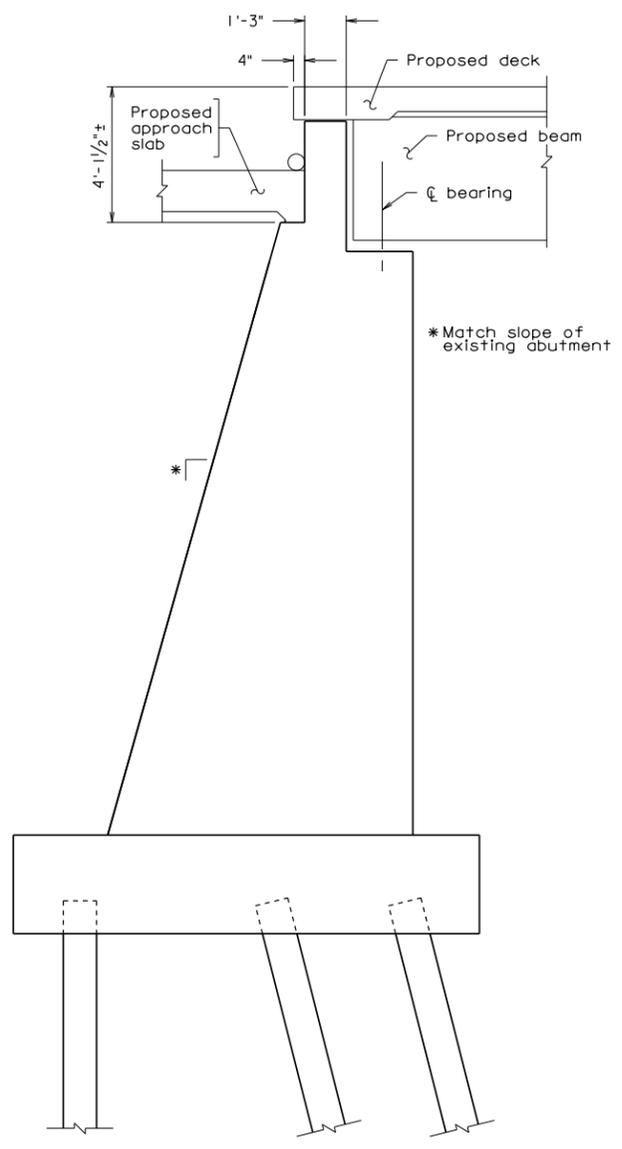
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ABUTMENT MODIFICATIONS			
No.	Description	Date	
Designed: WRA.....		Date	Plan No.
Drawn: WRA.....		Jun. 2017	Sheet No.
Checked: WRA.....			5 of 7
Revisions			

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.			64	0064-043-602, B624, B625	6

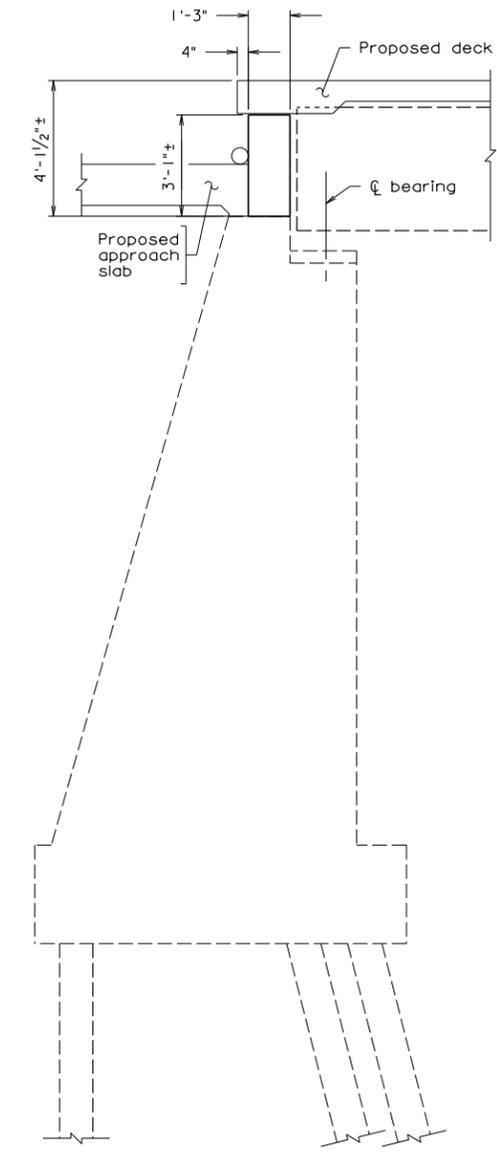
Notes:
 Install HR-1 railing on top of median wingwalls.
 For location of sections, see sheet 5 of 7.



SECTION A



SECTION B



SECTION C

PRELIMINARY PLANS
 THESE PLANS NOT TO BE USED
 FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES
 RICHMOND, VA
 STRUCTURAL ENGINEER



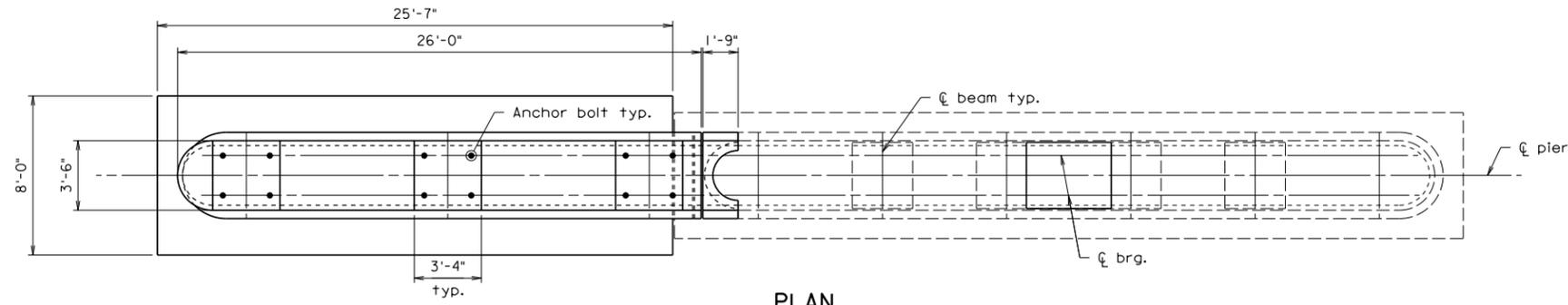
Scale: 3/8" = 1'-0" unless otherwise noted.

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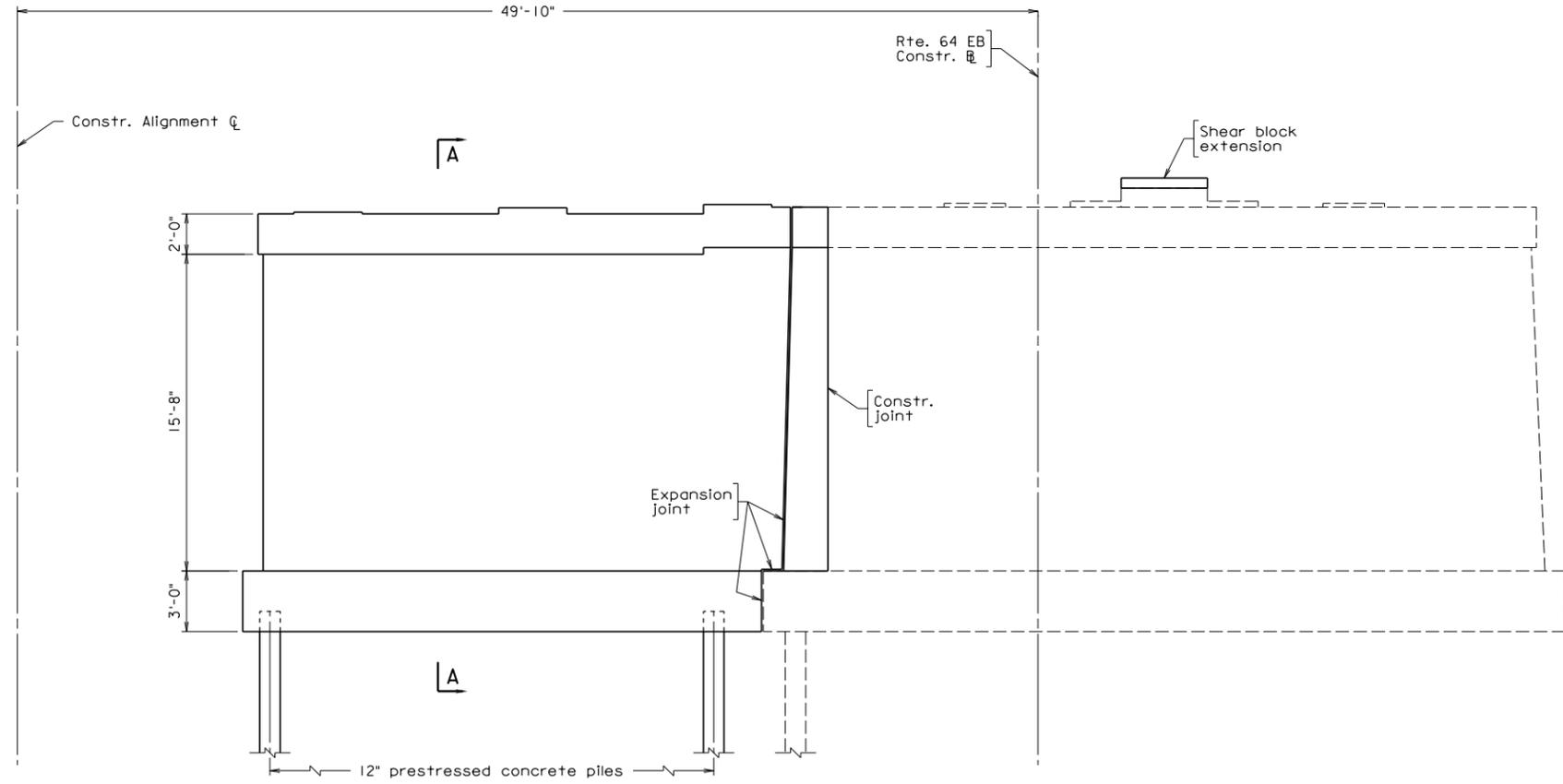
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ABUTMENT SECTIONS			
No.	Description	Date	Revisions
Designed: WRA	Drawn: WRA	Checked: WRA	Date: Jun, 2017
Plan No.	Sheet No.	6 of 7	

STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.			64	0064-043-602, B624, B625	7

Notes:
 Widening shall be in accordance with Section 412 of the Specifications.
 Existing reinforcing steel to remain.
 *Remove existing beam stirrups for installation of polystyrene.

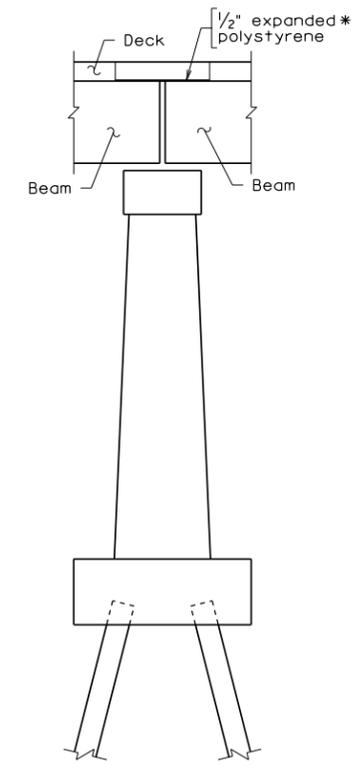


PLAN



ELEVATION

EBL pier shown, WBL pier similar opposite hand.



SECTION A-A

PRELIMINARY PLANS
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

WHITMAN REQUARDT & ASSOCIATES
 RICHMOND, VA
 STRUCTURAL ENGINEER



Scale: 1/4" = 1'-0" unless otherwise noted.

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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION				
STRUCTURE AND BRIDGE DIVISION				
PIER MODIFICATIONS				
No.	Description	Date	Designed: WRA.....	Date
			Drawn: WRA.....	Jun, 2017
			Checked: WRA.....	
Revisions			Plan No.	Sheet No.
				7 of 7

4.2.4.1 | Proposal Schedule



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018								2019				2020				2021	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
I-64 Widening Exit 200 to 205		506.8d	08-28-17	08-22-19	0.0d	08-22-19, I-64 Widening Exit 200 to 205																	
Project Milestones		506.8d	08-28-17	08-22-19	0.0d	08-22-19, Project Milestones																	
A1000	Notice to Proceed	0.0d	08-28-17		0.0d	Notice to Proceed																	
A1010	Final Completion	0.0d		08-22-19*	0.0d	◆ Final Completion																	
General Conditions		125.8d	08-28-17	02-23-18	359.0d	02-23-18, General Conditions																	
Scope Validation		125.8d	08-28-17	02-23-18	359.0d	02-23-18, Scope Validation																	
A1020	Commence Scope Validation Period	0.0d	08-28-17		360.0d	Commence Scope Validation Period																	
A1030	Perform Scope Validation Investigation & Submit General Notice	90.0d	08-28-17	01-05-18	360.0d	Perform Scope Validation Investigation & Submit General Notice																	
A1040	Prepare & Submit Final Scope Issue Supporting Document	21.0d	01-08-18	02-05-18	360.0d	Prepare & Submit Final Scope Issue Supporting Document																	
A1050	VDOT Review & Resolution of Scope Issues	21.0d	02-06-18	02-22-18	643.8d	VDOT Review & Resolution of Scope Issues																	
A1060	End of Scope Validation Period	1.0d	02-22-18	02-23-18	358.0d	End of Scope Validation Period																	
Project Administration Activities for Payment Only		0.0d			0.0d																		
Project Management (for Payment only)		0.0d			0.0d																		
Design Management (for Payment Only)		0.0d			0.0d																		
Quality Assurance / Quality Control (for Payment Only)		0.0d			0.0d																		
Construction Management (for Payment Only)		0.0d			0.0d																		
Design, Right-of-Way & Permitting		278.0d	08-28-17	09-28-18	174.0d	09-28-18, Design, Right-of-Way & Permitting																	
Design Milestones		250.1d	10-05-17	09-28-18	90.8d	09-28-18, Design Milestones																	
A1070	Design QA/QC Plan Approved	0.0d		10-05-17	101.0d	◆ Design QA/QC Plan Approved																	
A1150	AWP Released & VDPES Permit Issued	0.0d		10-23-17	115.0d	◆ AWP Released & VDPES Permit Issued																	
A1080	Final Geotech Report Approved - Bridge	0.0d		01-02-18	33.5d	◆ Final Geotech Report Approved - Bridge																	
A1090	Final Geotech Report Approved - Roadway	0.0d		01-19-18	5.3d	◆ Final Geotech Report Approved - Roadway																	
A1100	Final Geotech Report Approved - Noise Wall	0.0d		01-29-18	120.3d	◆ Final Geotech Report Approved - Noise Wall																	
A1180	Stage II Bridge Plan Approved by VDOT	0.0d		03-26-18	29.0d	◆ Stage II Bridge Plan Approved by VDOT																	
A1160	ROW Authorization Received	0.0d		03-26-18	126.3d	◆ ROW Authorization Received																	
A1170	Grading and Drainage WP AFC	0.0d		03-26-18	79.3d	◆ Grading and Drainage WP AFC																	
A1105	FHWA Review & Approval	0.0d		04-12-18	3.5d	◆ FHWA Review & Approval																	
A1130	Water Quality Permit Acquired	0.0d		04-20-18	59.8d	◆ Water Quality Permit Acquired																	
A1110	End of Public Comment on Noise Wall Report	0.0d		06-01-18	3.5d	◆ End of Public Comment on Noise Wall Report																	
A1190	AFC ITS/Lighting/Signing/Striping Plan Released	0.0d		06-04-18	27.0d	◆ AFC ITS/Lighting/Signing/Striping Plan Released																	
A1200	AFC Roadway Plans Released	0.0d		06-04-18	121.8d	◆ AFC Roadway Plans Released																	
A1140	Utility and DB "Master Agreements" completed	0.0d		08-21-18	116.8d	◆ Utility and DB "Master Agreements" completed																	
A1120	AFC Noise Wall Plan Released	0.0d		09-28-18	1.0d	◆ AFC Noise Wall Plan Released																	
QA/QC Plan		27.9d	08-28-17	10-05-17	102.0d	10-05-17, QA/QC Plan																	
A1210	Prepare QA/QC Plan	10.0d	08-28-17	09-11-17	101.0d	Prepare QA/QC Plan																	
A1220	Submit QA/QC Plan	0.0d	09-12-17	09-12-17	101.0d	Submit QA/QC Plan																	
A1230	VDOT Review QA/QC Plan	21.0d	09-12-17	09-28-17	183.8d	VDOT Review QA/QC Plan																	
A1240	Revise and Resubmit QA/QC Plan	5.0d	09-28-17	10-05-17	101.0d	Revise and Resubmit QA/QC Plan																	
Survey		50.0d	08-28-17	11-06-17	402.0d	11-06-17, Survey																	
A1250	Supplemental Field Survey & Stakeout Borings	50.0d	08-28-17	11-06-17	400.0d	Supplemental Field Survey & Stakeout Borings																	
Geotechnical Study, Analysis and Reports		106.8d	08-28-17	01-29-18	120.3d	01-29-18, Geotechnical Study, Analysis and Reports																	
A1260	Prepare Boring Plan	10.0d	08-28-17	09-11-17	7.0d	Prepare Boring Plan																	
A1270	Miss Utility Markings	5.0d	09-12-17	09-18-17	7.0d	Miss Utility Markings																	
Part-1 - Bridge		72.0d	09-19-17	12-31-17	33.5d	12-31-17, Part-1 - Bridge																	
A1280	Perform Soil Borings and Lab Work - Bridge	25.0d	09-19-17	10-23-17	30.0d	Perform Soil Borings and Lab Work - Bridge																	
A1290	Prepare Geotech Report and Recommendations - Bridge	15.0d	10-24-17	11-13-17	30.0d	Prepare Geotech Report and Recommendations - Bridge																	
A1300	QA/QC and Submit Geotech Report - Bridge	5.0d	11-14-17	11-20-17	30.0d	QA/QC and Submit Geotech Report - Bridge																	
A1310	VDOT Review Geotech Report - Bridge	21.0d	11-21-17	12-07-17	58.6d	VDOT Review Geotech Report - Bridge																	
A1320	Revise/Resubmit Geotech Report - Bridge	5.0d	12-07-17	12-14-17	30.9d	Revise/Resubmit Geotech Report - Bridge																	
A1330	VDOT Review & Approval of revised Geotech Report - Bridge	21.0d	12-14-17	12-31-17	58.6d	VDOT Review & Approval of revised Geotech Report - Bridge																	
Part-2 - Roadway		85.8d	09-19-17	01-19-18	5.3d	01-19-18, Part-2 - Roadway																	
A1340	Perform Soil Borings and Lab Work - Roadway	35.0d	09-19-17	11-06-17	7.0d	Perform Soil Borings and Lab Work - Roadway																	
A1350	Prepare Geotech Report and Recommendations - Roadway	15.0d	11-07-17	11-29-17	7.0d	Prepare Geotech Report and Recommendations - Roadway																	
A1360	QA/QC and Submit Geotech Report - Roadway	5.0d	11-30-17	12-06-17	7.0d	QA/QC and Submit Geotech Report - Roadway																	
A1370	VDOT Review Geotech Report - Roadway	21.0d	12-07-17	12-23-17	13.0d	VDOT Review Geotech Report - Roadway																	
A1380	Revise/Resubmit Geotech Report - Roadway	5.0d	12-26-17	01-02-18	5.1d	Revise/Resubmit Geotech Report - Roadway																	
A1390	VDOT Review & Approval of revised Geotech Report - Roadway	21.0d	01-03-18	01-19-18	9.0d	VDOT Review & Approval of revised Geotech Report - Roadway																	
Part-3 - Noise Wall		81.8d	10-03-17	01-29-18	120.3d	01-29-18, Part-3 - Noise Wall																	
A1400	Perform Soil Borings and Lab Work - Noise	35.0d	10-03-17	11-20-17	118.4d	Perform Soil Borings and Lab Work - Noise																	



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021			
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A1410	Prepare Geotech Report and Recommendations - Noise	10.0d	11-21-17	12-06-17	118.4d	■ Prepare Geotech Report and Recommendations - Noise															
A1420	QA/QC and Submit Geotech Report - Noise	10.0d	12-07-17	12-20-17	118.4d	■ QA/QC and Submit Geotech Report - Noise															
A1430	VDOT Review Geotech Report - Noise	21.0d	12-21-17	01-06-18	211.8d	■ VDOT Review Geotech Report - Noise															
A1440	Revise/Resubmit Geotech Report - Noise	5.0d	01-08-18	01-12-18	119.1d	■ Revise/Resubmit Geotech Report - Noise															
A1450	VDOT Review & Approval of revised Geotech Report - Noise	21.0d	01-13-18	01-29-18	212.8d	■ VDOT Review & Approval of revised Geotech Report - Noise															
Noise Analysis		278.0d	08-28-17	09-28-18	1.0d	▼ 09-28-18, Noise Analysis															
A1460	Noise Analysis and Report Preparation	65.0d	08-28-17	11-29-17	4.3d	■ Noise Analysis and Report Preparation															
A1470	QA/QC Noise Report	65.0d	11-30-17	03-02-18	4.3d	■ QA/QC Noise Report															
A1480	VDOT Review	21.0d	03-03-18	03-19-18	7.9d	■ VDOT Review															
A1490	Incorporate Comments and Resubmit	5.0d	03-19-18	03-26-18	4.3d	■ Incorporate Comments and Resubmit															
A1500	FHWA Review & Approval	21.0d	03-26-18	04-12-18	6.8d	■ FHWA Review & Approval															
A1510	Public Comment	35.0d	04-12-18	06-01-18	3.5d	■ Public Comment															
A1520	Revise Report	10.0d	06-01-18	06-15-18	3.5d	■ Revise Report															
A1530	QA/QC & Submit Amended Report	2.0d	06-15-18	06-19-18	3.5d	■ QA/QC & Submit Amended Report															
A1540	VDOT Review of Amended Report	21.0d	06-19-18	07-06-18	4.8d	■ VDOT Review of Amended Report															
A1550	Incorporate Comments and Final VDOT Approval	7.0d	07-06-18	07-17-18	1.8d	■ Incorporate Comments and Final VDOT Approval															
A1560	Prepare Final Noise Wall Plan Submittal	25.0d	07-17-18	08-21-18	1.8d	■ Prepare Final Noise Wall Plan Submittal															
A1570	QA/QC Final Noise Wall Plan	5.0d	08-21-18	08-28-18	1.8d	■ QA/QC Final Noise Wall Plan															
A1580	Submit Final Noise Wall Plan Submittal	2.0d	08-28-18	08-30-18	1.8d	■ Submit Final Noise Wall Plan Submittal															
A1590	VDOT Review & Approve Final Noise Wall Plan Submittal	21.0d	08-30-18	09-16-18	2.5d	■ VDOT Review & Approve Final Noise Wall Plan Submittal															
A1600	AFC Noise Wall Plan Released	10.0d	09-17-18	09-28-18	1.0d	■ AFC Noise Wall Plan Released															
Environmental Permits		166.0d	08-28-17	04-20-18	59.8d	▼ 04-20-18, Environmental Permits															
A1610	Wetland Delineation	35.0d	08-28-17	10-16-17	59.8d	■ Wetland Delineation															
A1630	Phase 1 ESA	30.0d	08-28-17	10-09-17	64.8d	■ Phase 1 ESA															
A1620	Water Quality Permit - WVP3/VMRC/SPGP	130.0d	10-17-17	04-20-18	59.8d	■ Water Quality Permit - WVP3/VMRC/SPGP															
Utility Relocation/Coordination		252.0d	08-28-17	08-22-18	117.8d	▼ 08-22-18, Utility Relocation/Coordination															
A1640	Obtain Letter authorizing DB to coordinate utility relocations	0.0d	08-28-17	08-28-17	251.8d	■ Obtain Letter authorizing DB to coordinate utility relocations															
A1660	VDOT Coordination Meeting	10.0d	10-31-17	11-13-17	196.8d	■ VDOT Coordination Meeting															
A1670	Preliminary Review Meeting with Utility Owners	10.0d	10-31-17	11-13-17	196.8d	■ Preliminary Review Meeting with Utility Owners															
A1700	Preliminary Utility Status Report	10.0d	02-19-18	03-02-18	116.8d	■ Preliminary Utility Status Report															
A1650	Preliminary Plans to Utilities (30% Plans to UFI)	5.0d	03-05-18	03-09-18	116.8d	■ Preliminary Plans to Utilities (30% Plans to UFI)															
A1680	Utility Field Inspection	25.0d	03-12-18	04-13-18	116.8d	■ Utility Field Inspection															
A1690	Prepare UT-9 Forms	5.0d	04-16-18	04-20-18	116.8d	■ Prepare UT-9 Forms															
A1710	Utilities submits plan and estimate (P&E)	65.0d	04-23-18	07-24-18	116.8d	■ Utilities submits plan and estimate (P&E)															
A1720	Utility P&E approval	5.0d	07-25-18	07-31-18	116.8d	■ Utility P&E approval															
A1730	Utility and DB "Master Agreements" completed	15.0d	08-01-18	08-21-18	116.8d	■ Utility and DB "Master Agreements" completed															
Utility Relocation		1.0d	08-22-18	08-22-18	117.8d	▼ 08-22-18, Utility Relocation															
A4140	Temp Pole - DVP Line (conflict with Noise Wall) - Sta.1509+41	1.0d	08-22-18	08-22-18	116.8d	■ Temp Pole - DVP Line (conflict with Noise Wall) - Sta.1509+41															
A4150	Relocate Service Pole with meter - DVP (conflict with Noise Wa	1.0d	08-22-18	08-22-18	116.8d	■ Relocate Service Pole with meter - DVP (conflict with Noise Wall) - Sta.1530+20															
Advance MOT/Clearing/E&S Work Package (AWP)		39.8d	08-28-17	10-23-17	116.0d	▼ 10-23-17, Advance MOT/Clearing/E&S Work Package (AWP)															
A1740	Advanced MOT/Clearing/E&S Plans & VPDES	15.0d	08-28-17	09-18-17	113.0d	■ Advanced MOT/Clearing/E&S Plans & VPDES															
A1750	Design QA/QC Review of AWP	2.0d	09-19-17	09-20-17	113.0d	■ Design QA/QC Review of AWP															
A1760	Prepare AWP for Submission	2.0d	09-21-17	09-22-17	113.0d	■ Prepare AWP for Submission															
A1770	VDOT Review of AWP	21.0d	09-23-17	10-09-17	206.3d	■ VDOT Review of AWP															
A1780	Comment Resolution/Revise AWP	5.0d	10-09-17	10-16-17	115.0d	■ Comment Resolution/Revise AWP															
A1790	Resubmit AWP for Approval	0.0d	10-16-17	10-16-17	115.0d	■ Resubmit AWP for Approval															
A1800	AWP Released & VPDES Permit issued	5.0d	10-16-17	10-23-17	115.0d	■ AWP Released & VPDES Permit issued															
RW/Grading and Drainage Work Package		191.5d	08-28-17	05-29-18	127.3d	▼ 05-29-18, RW/Grading and Drainage Work Package															
A1810	ROW, Grading & Drainage Work Package	45.0d	08-28-17	10-30-17	0.0d	■ ROW, Grading & Drainage Work Package															
A1820	Prepare ROW Plan Sheets	10.0d	10-31-17	11-13-17	0.0d	■ Prepare ROW Plan Sheets															
A1830	Preliminary ROW/Easement Acquisition Effort (Title research, E	45.0d	11-14-17	01-19-18	0.0d	■ Preliminary ROW/Easement Acquisition Effort (Title research, BAR)															
A1840	Design QA/QC Review of Roadway Plans	5.0d	01-22-18	01-26-18	0.0d	■ Design QA/QC Review of Roadway Plans															
A1850	Prepare Roadway Plans for Submission	2.0d	01-29-18	01-30-18	0.0d	■ Prepare Roadway Plans for Submission															
A1860	VDOT Review of ROW Plans	21.0d	01-31-18	02-16-18	142.9d	■ VDOT Review of ROW Plans															
A1870	Comment Resolution/Revise ROW Plans	10.0d	02-16-18	03-02-18	79.3d	■ Comment Resolution/Revise ROW Plans															
A1880	Resubmit ROW Plans for Approval	0.0d	03-02-18	03-02-18	79.3d	■ Resubmit ROW Plans for Approval															
A1890	VDOT Review and Approval	21.0d	03-02-18	03-19-18	141.5d	■ VDOT Review and Approval															
A1900	ROW Authorization	5.0d	03-19-18	03-26-18	126.3d	■ ROW Authorization															
A1920	Grading and Drainage WPAFC	5.0d	03-19-18	03-26-18	79.3d	■ Grading and Drainage WPAFC															



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021		
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A1910	Perform ROW / Easement Acquisition	45.0d	03-26-18	05-29-18	126.3d															
Bridge		146.0d	08-28-17	03-25-18	20.0d															
A1930	Bridge Stage I Design (T S & L)	20.0d	08-28-17	09-25-17	21.8d															
A1940	Design QA/QC Stage I	5.0d	09-26-17	10-02-17	21.8d															
A2040	Bridge H&HA & Scour Analysis	15.0d	09-26-17	10-16-17	94.5d															
A1950	Prepare Stage I for Submission	2.0d	10-03-17	10-04-17	21.8d															
A1960	VDOT Review Stage I	21.0d	10-05-17	10-21-17	37.3d															
A1970	Revise and address Comments Stage I	5.0d	10-23-17	10-27-17	20.5d															
A1980	Stage II Bridge Design	55.0d	10-30-17	01-18-18	20.5d															
A1990	Design QA/QC Stage II Bridge Design	10.0d	01-19-18	02-01-18	20.5d															
A2000	Prepare Stage II for Submission	2.0d	02-02-18	02-05-18	20.5d															
A2010	VDOT Review Stage II	21.0d	02-06-18	02-22-18	35.6d															
A2020	Revise and address Comments Stage II	10.0d	02-22-18	03-08-18	20.5d															
A2030	VDOT Review / Approve Revise Stage II	21.0d	03-08-18	03-25-18	35.6d															
ITS/Lighting/Signing/Striping		88.0d	01-31-18	06-04-18	27.0d															
A2050	Preliminary ITS / Lighting / Signage / Striping Plan	45.0d	01-31-18	04-03-18	0.0d															
A2060	QA/QC Preliminary ITS / Lighting / Signage / Striping Plan	5.0d	04-04-18	04-10-18	0.0d															
A2070	VDOT Review ITS / Lighting / Signage / Striping Plan	21.0d	04-11-18	04-27-18	0.0d															
A2080	Revise & Address Comments ITS / Lighting / Signage / Striping	10.0d	04-27-18	05-11-18	25.5d															
A2090	VDOT Review & Approve ITS / Lighting / Signage / Striping Plan	21.0d	05-11-18	05-28-18	48.1d															
A2100	AFC ITS / Lighting / Signage / Striping Plans Released	5.0d	05-29-18	06-04-18	27.0d															
Final Roadway		54.5d	03-19-18	06-04-18	122.8d															
A2110	Roadway Plans / Incorporate / Resolve	30.0d	03-19-18	04-30-18	121.5d															
A2120	Design QA/QC Review of Roadway Plans	5.0d	04-30-18	05-07-18	121.5d															
A2130	Preliminary Roadway Plans for Submission	2.0d	05-07-18	05-09-18	121.5d															
A2140	VDOT Review / Approve Final Design Plans	21.0d	05-09-18	05-26-18	218.1d															
A2150	AFC Roadway Plans Released	5.0d	05-29-18	06-04-18	121.8d															
Engineering & Procurement		366.8d	08-28-17	02-05-19	117.0d															
Engineering		299.8d	08-28-17	10-30-18	184.0d															
Engineering - Preparatory Meetings		0.0d			0.0d															
Engineering - Project Schedules		88.0d	08-28-17	01-02-18	395.8d															
A5200	Prepare & Submit Preliminary Schedule	15.0d	08-28-17	09-18-17	394.8d															
A5210	Review & Accpet Preliminary Schedule	21.0d	09-19-17	10-17-17	394.8d															
A5220	Prepare & Submit Baseline Schedule	30.0d	10-18-17	11-30-17	394.8d															
A5230	Review & Accept Baseline Schedule	21.0d	12-01-17	01-02-18	394.8d															
Engineering - Bridge Submittals		49.8d	02-06-18	04-16-18	72.0d															
A4040	Bridge Submittal - Cofferdam	5.0d	02-06-18	02-12-18	62.0d															
A4050	Bridge Submittal - Shoring	5.0d	02-06-18	02-12-18	46.0d															
A4090	Review & Approval of Cofferdam Submittal	21.0d	02-13-18	03-01-18	107.5d															
A4100	Review & Approval of Shoring Submittal	21.0d	02-13-18	03-01-18	80.0d															
A4010	Bridge Submittal - Pile	5.0d	03-26-18	03-30-18	20.0d															
A4020	Bridge Submittal - Beam	5.0d	03-26-18	03-30-18	29.0d															
A4030	Bridge Submittal - Rebar	5.0d	03-26-18	03-30-18	25.8d															
A4055	Bridge Submittal - Formwork	5.0d	03-26-18	03-30-18	70.0d															
A4060	Review & Approval of Pile Submittals	21.0d	03-31-18	04-16-18	37.5d															
A4070	Review & Approval of Beam Submittal	21.0d	03-31-18	04-16-18	51.3d															
A4080	Review & Approval of Rebar Submittal	21.0d	03-31-18	04-16-18	47.3d															
A4110	Review & Approval of Formwork Submittal	21.0d	03-31-18	04-16-18	127.5d															
Engineering - ITS & Lighting		112.0d	04-27-18	10-05-18	0.0d															
A5420	Electric Power Request/Installation & Inspection	112.0d	04-27-18	10-05-18	0.0d															
A5290	Submittal for ITS Hardware/Structures/CCTV Camera	10.0d	05-29-18	06-11-18	27.0d															
A5240	Boring for ITS Poles	15.0d	06-05-18	06-25-18	39.8d															
A5270	Prepare & Submit - Lighting Submittal	10.0d	06-05-18	06-18-18	43.8d															
A5300	Review & Approval of ITS Hardware/Structures/CCTV Cameras	21.0d	06-12-18	07-11-18	27.0d															
A5280	Review & Approve Lighting Submittal	21.0d	06-19-18	07-05-18	78.5d															
A5250	Prepare & Submit ITS Pole Foundation Design	10.0d	06-26-18	07-10-18	39.8d															
A5260	Review & Approval of ITS Pole Found	21.0d	07-11-18	07-27-18	71.0d															
Engineering - Overhead Signs		38.8d	06-05-18	07-30-18	47.8d															
A4890	Shop dwg submittal - OH Sign @ Sta.2419+50 WB	28.0d	06-05-18	07-13-18	45.8d															



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021		
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A4900	Shop dwg submittal - OH Sign @ Sta.2444+75 WB	28.0d	06-05-18	07-13-18	42.8d															
A4910	Shop dwg submittal - OH Sign @ Sta.2469+75 WB	28.0d	06-05-18	07-13-18	45.8d															
A4920	Review & Approve shop dwg - OH Sign @ Sta.2419+50 WB	21.0d	07-14-18	07-30-18	83.5d															
A4930	Review & Approve shop dwg submittal - OH Sign @ Sta.2444+	21.0d	07-14-18	07-30-18	77.3d															
A4940	Review & Approve shop dwg submittal - OH Sign @ Sta.2469+	21.0d	07-14-18	07-30-18	83.5d															
Engineering - Noise Wall		21.8d	10-01-18	10-30-18	3.0d															
A4160	Foundation Design & Shop dwg Submittal	10.0d	10-01-18	10-12-18	1.0d															
A4170	VDOT Review of Found Design & Shop dwg	21.0d	10-13-18	10-29-18	3.8d															
A4180	Address VDOT Comments	1.0d	10-29-18	10-30-18	3.0d															
A4190	VDOT's Approval of Found Design & Shop dwgs - Noise Wall	0.0d		10-30-18	3.0d															
Procurement		237.0d	03-01-18	02-05-19	3.0d															
Procurement - Bridge		56.0d	03-01-18	05-18-18	28.0d															
A4120	Cofferdam Procurement	5.0d	03-01-18	03-05-18	107.5d															
A4130	Shoring Procurement	5.0d	03-01-18	03-08-18	46.0d															
A3980	Pile Procurement	25.0d	04-16-18	05-06-18	37.5d															
A3990	Rebar Procurement	20.0d	04-16-18	05-02-18	47.3d															
A4000	Beam Procurement	40.0d	04-16-18	05-18-18	51.3d															
Procurement - ITS & Lighting		99.3d	05-11-18	10-02-18	39.8d															
A5310	Procure Conduits & Junction Box	30.0d	05-11-18	06-04-18	73.8d															
A5340	Lighting Poles & Fixtures Fabrication	84.0d	07-05-18	09-10-18	78.5d															
A5350	Lighting Control Cabinet Fabrication	60.0d	07-05-18	08-22-18	93.8d															
A5330	Procure ITS Cabinets/Structures/Cameras	60.0d	07-12-18	08-28-18	73.5d															
A5360	Procure Wire & Fiber	60.0d	07-12-18	08-28-18	47.3d															
A5370	ITS Pole Fabrication	84.0d	07-27-18	10-02-18	71.0d															
Procurement - Overhead Signs		87.0d	06-05-18	10-05-18	45.8d															
A4980	Fabrication of Ground Mount Signs	30.0d	06-05-18	07-17-18	96.8d															
A4950	Fabrication of OH Sign at Sta.2419+50 WB	84.0d	07-30-18	10-05-18	83.5d															
A4960	Fabrication of OH Sign at Sta.2444+75 WB	84.0d	07-30-18	10-05-18	77.3d															
A4970	Fabrication of OH Sign at Sta.2469+75 WB	84.0d	07-30-18	10-05-18	83.5d															
Procurement - Noise Wall		67.0d	10-30-18	02-05-19	3.0d															
A4200	Noise Wall Panel Mockup Fabrication	5.0d	10-30-18	11-06-18	3.0d															
A4240	Noise Wall Mockup Review & Approval	1.0d	11-06-18	11-07-18	3.0d															
A4250	Noise Wall Post & Panel Fabrication	60.0d	11-07-18	02-05-19	3.0d															
Mobilization / Demobilization / Punchlist		478.9d	10-05-17	08-22-19	0.0d															
A5460	Construction QA/QC Plan Update	0.0d	10-05-17		101.0d															
A5470	Mobilization	5.0d	03-01-18	03-08-18	370.9d															
A5490	Construction Start	0.0d	03-01-18*		0.0d															
A5480	Punch List	22.0d	07-23-19	08-22-19	0.0d															
Construction		354.9d	03-01-18	07-23-19	0.0d															
Phase I Construction - Shoulder Rehabilitation & Temp Pavement		6.0d	03-01-18	03-09-18	69.9d															
Maintenance of Traffic		2.0d	03-01-18	03-05-18	73.9d															
A4210	Installation of MOT Items	1.0d	03-01-18	03-02-18	25.9d															
A4390	Installation of Construction Entrances	1.0d	03-02-18	03-05-18	73.9d															
Shoulder Rehabilitation & Temp Pavement		5.0d	03-02-18	03-09-18	25.9d															
A4220	Pull off Area - Sta.2454+00 to 2462+00 WB	1.0d	03-02-18	03-05-18	25.9d															
A4230	Pull off Area - Sta.2481+50 to Sta.2489+50 EB	1.0d	03-05-18	03-06-18	25.9d															
A4330	Pull off Area - Sta.2509+00 to Sta.2517+00 WB	1.0d	03-06-18	03-07-18	25.9d															
A4340	Pull off Area - Sta.2534+25 to Sta.2542+25 EB	1.0d	03-07-18	03-08-18	25.9d															
A4350	Pull off Area - Sta.2564+00 to Sta.2572+00 WB	1.0d	03-08-18	03-09-18	25.9d															
Phase II Construction - Roadway & Bridge Widening		212.9d	03-01-18	01-02-19	0.0d															
Bridge Widening		192.1d	03-01-18	11-30-18	20.8d															
Bridge Access		6.0d	03-01-18	03-09-18	44.9d															
A2160	Install Construction Access - WB/EB Median	6.0d	03-01-18	03-09-18	44.9d															
Shoring		61.1d	03-09-18	06-05-18	20.8d															
Westbound		61.1d	03-09-18	06-05-18	20.8d															
A2180	Install Temp Shoring - WB - Abut A	2.0d	03-09-18	03-13-18	44.9d															
A2200	Install Temp Shoring - WB - Abut B	2.0d	06-04-18	06-05-18	20.8d															
Eastbound		2.0d	03-09-18	03-13-18	50.9d															
A2190	Install Temp Shoring - EB - Abut A	2.0d	03-09-18	03-13-18	47.9d															
A2210	Install Temp Shoring - EB - Abut B	2.0d	03-09-18	03-13-18	50.9d															



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021			
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Demo																					
Westbound																					
A2220	Decks & Parapet - WB - Superstr.	10.0d	03-13-18	03-27-18	44.9d																
A2240	Abut Wings & Footings - WB Substr.	4.0d	03-21-18	03-27-18	44.9d																
Eastbound																					
A2230	Decks & Parapet - EB - Superstr.	10.0d	03-13-18	03-27-18	47.9d																
A2250	Abut Wings & Footings - EB Substr.	4.0d	03-21-18	03-27-18	47.9d																
Cofferdams																					
Westbound																					
A2260	Install Cofferdam - WB - Pier 2	3.0d	03-27-18	03-30-18	44.9d																
A2280	Install Cofferdam - WB - Pier 3	3.0d	03-27-18	03-30-18	44.9d																
A2300	Remove Cofferdam - WB - Pier 2	2.0d	05-31-18	06-01-18	20.8d																
A2320	Remove Cofferdam - WB - Pier 3	2.0d	05-31-18	06-01-18	20.8d																
Eastbound																					
A2270	Install Cofferdam - EB - Pier 2	3.0d	03-27-18	03-30-18	47.9d																
A2290	Install Cofferdam - EB - Pier 3	3.0d	03-27-18	03-30-18	47.9d																
A2310	Remove Cofferdam - EB - Pier 2	2.0d	05-31-18	06-01-18	23.8d																
A2330	Remove Cofferdam - EB - Pier 3	2.0d	05-31-18	06-01-18	23.8d																
Structure Excavation																					
Westbound																					
A2360	Excavate WB - Pier 2	1.0d	03-30-18	04-02-18	44.9d																
A2370	Excavate WB - Pier 3	1.0d	03-30-18	04-02-18	44.9d																
A2350	Excavate WB - Pier 1	1.0d	06-04-18	06-04-18	34.8d																
A2380	Excavate WB - Abut B	2.0d	06-06-18	06-07-18	20.8d																
A2340	Excavate - WB - Abut A	2.0d	07-23-18	07-24-18	20.8d																
Eastbound																					
A2410	Excavate EB - Pier 2	1.0d	03-30-18	04-02-18	47.9d																
A2420	Excavate EB - Pier 3	1.0d	03-30-18	04-02-18	47.9d																
A2400	Excavate EB - Pier 1	1.0d	06-05-18	06-05-18	35.8d																
A2430	Excavate EB - Abut B	2.0d	06-05-18	06-06-18	23.8d																
A2390	Excavate EB - Abut A	2.0d	07-19-18	07-20-18	23.8d																
Foundation Piles																					
Westbound																					
A2460	Drive Piles - WB - Pier 2	3.0d	05-07-18	05-09-18	20.8d																
A2470	Drive Piles - WB - Pier 3	3.0d	05-07-18	05-09-18	20.8d																
A2450	Drive Piles - WB - Pier 1	3.0d	06-05-18	06-07-18	34.8d																
A2480	Drive Piles - WB - Abut B	4.0d	06-08-18	06-13-18	20.8d																
A2440	Drive Piles - WB - Abut A	4.0d	07-25-18	07-30-18	20.8d																
Eastbound																					
A2510	Drive Piles - EB - Pier 2	3.0d	05-07-18	05-09-18	23.8d																
A2520	Drive Piles - EB - Pier 3	3.0d	05-07-18	05-09-18	23.8d																
A2500	Drive Piles - EB - Pier 1	3.0d	06-06-18	06-08-18	35.8d																
A2530	Drive Piles - EB - Abut B	4.0d	06-07-18	06-12-18	23.8d																
A2490	Drive Piles - EB - Abut A	4.0d	07-23-18	07-26-18	23.8d																
Footings																					
Westbound																					
A2560	Form, Reinf, Pour, Strip - WB - Pier 2	3.0d	05-10-18	05-14-18	20.8d																
A2570	Form, Reinf, Pour, Strip - WB - Pier 3	3.0d	05-10-18	05-14-18	20.8d																
A2550	Form, Reinf, Pour, Strip - WB - Pier 1	3.0d	06-08-18	06-12-18	34.8d																
A2580	Form, Reinf, Pour, Strip - WB - Abut B	4.0d	06-14-18	06-19-18	20.8d																
A2540	Form, Reinf, Pour, Strip - WB - Abut A	4.0d	07-31-18	08-03-18	20.8d																
Eastbound																					
A2610	Form, Reinf, Pour, Strip - EB - Pier 2	3.0d	05-10-18	05-14-18	23.8d																
A2620	Form, Reinf, Pour, Strip - EB - Pier 3	3.0d	05-10-18	05-14-18	23.8d																
A2600	Form, Reinf, Pour, Strip - EB - Pier 1	3.0d	06-11-18	06-13-18	35.8d																
A2630	Form, Reinf, Pour, Strip - EB - Abut B	4.0d	06-13-18	06-18-18	23.8d																
A2590	Form, Reinf, Pour, Strip - EB - Abut A	4.0d	07-27-18	08-01-18	23.8d																
Abutment Neat																					
Westbound																					
A2660	Form, Reinf, Pour, Strip / Stem - WB - Abut B	6.0d	06-20-18	06-27-18	20.8d																
A2700	Form, Reinf, Pour, Strip / Backwall - WB - Abut B	4.0d	06-28-18	07-03-18	20.8d																



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
A3220	Place Parapet Concrete - WB - Superstr.	2.0d	11-06-18	11-07-18	20.8d														
A3240	Strip Deck Forms & Overhangs - WB - Superstr.	5.0d	11-08-18	11-14-18	20.8d														
A3260	Deck Grooving - WB - Superstr.	1.0d	11-15-18	11-15-18	20.8d														
Eastbound		115.0d	06-04-18	11-13-18	24.8d														
A5500	Erect Beam - Span C - EB Superstr.	1.0d	06-04-18	06-04-18	23.8d														
A5510	Erect Beam - Span B&D - EB - Superstr.	1.0d	07-18-18	07-18-18	23.8d														
A5520	Erect Beam - Span A - EB Superstr.	2.0d	08-30-18	08-31-18	23.8d														
A3050	Form, Reinf, Pour, Strip / Diaphragms - EB - Superstr.	15.0d	09-04-18	09-24-18	23.8d														
A3070	Install Deck Soffit Forms - EB - Superstr.	5.0d	09-25-18	10-01-18	23.8d														
A3090	Install Deck Overhang Forms - EB - Superstr.	12.0d	10-02-18	10-17-18	23.8d														
A3110	Install Deck Rebar - EB - Superstr.	4.0d	10-18-18	10-23-18	23.8d														
A3160	Prep for Deck Pours - EB - Superstr.	3.0d	10-24-18	10-26-18	23.8d														
A3170	Place Deck Concrete / Spans A&B - EB - Superstr.	1.0d	10-29-18	10-29-18	23.8d														
A3180	Place Deck Concrete / Spans C&D - EB - Superstr.	1.0d	10-30-18	10-30-18	23.8d														
A3190	Place Deck Concrete / Pier Closures - EB - Superstr.	1.0d	10-31-18	10-31-18	23.8d														
A3210	Install Parapet Rebar - EB - Superstr.	1.0d	11-01-18	11-01-18	23.8d														
A3230	Place Parapet Concrete - EB - Superstr.	2.0d	11-02-18	11-05-18	23.8d														
A3250	Strip Deck Forms & Overhangs - EB - Superstr.	5.0d	11-06-18	11-12-18	23.8d														
A3270	Deck Grooving - EB - Superstr.	1.0d	11-13-18	11-13-18	23.8d														
Approach Slabs		9.0d	11-14-18	11-27-18	21.8d														
Westbound		7.0d	11-16-18	11-27-18	20.8d														
A3280	Form, Reinf, Pour, Strip / Appr. Slab - WB - Abut A	3.0d	11-16-18	11-20-18	20.8d														
A3300	Form, Reinf, Pour, Strip / Appr. Slab - WB - Abut B	3.0d	11-21-18	11-27-18	20.8d														
Eastbound		6.0d	11-14-18	11-21-18	24.8d														
A3290	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut A	3.0d	11-14-18	11-16-18	23.8d														
A3310	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut B	3.0d	11-19-18	11-21-18	23.8d														
Inspection		5.0d	11-26-18	11-30-18	20.8d														
A3330	Inspection & Load Rating - EB - Bridge	2.0d	11-26-18	11-27-18	23.8d														
A3320	Inspection & Load Rating - WB - Bridge	3.0d	11-28-18	11-30-18	20.8d														
Roadway Widening Inside Median		206.9d	03-09-18	01-02-19	0.0d														
Road Widening - Area -1 Sta.1402 to Sta.1555		180.0d	03-09-18	11-21-18	26.9d														
Clearing & Erosion Control		64.0d	03-09-18	06-08-18	25.9d														
A4360	Construction Survey - Setting LOD	4.0d	03-09-18	03-15-18	25.9d														
A4370	Installation of E&S Measures	20.0d	03-15-18	04-12-18	65.9d														
A4380	Clearing & Grubbing	60.0d	03-15-18	06-08-18	25.9d														
Drainage		75.0d	06-08-18	09-25-18	25.9d														
A4400	Drainage Pipe -10A @ Sta.1400+00	3.0d	06-08-18	06-13-18	25.9d														
A4410	Drainage Pipe -10B @ Sta.1400+00	3.0d	06-13-18	06-18-18	25.9d														
A4420	Drainage Pipe -10C @ Sta.1400+00	3.0d	06-18-18	06-21-18	25.9d														
A4430	Drainage Pipe -11 @ Sta.1403+15	3.0d	06-21-18	06-26-18	25.9d														
A4440	Drainage Pipe -12 @ Sta.1407+95	3.0d	06-26-18	06-29-18	25.9d														
A4450	Drainage Pipe -13 @ Sta.1429+00	3.0d	06-29-18	07-05-18	25.9d														
A4460	Box Culvert - 2 @ Sta.1449+00	5.0d	07-05-18	07-12-18	25.9d														
A4470	Box Culvert - 3 @ Sta.1450+00	5.0d	07-12-18	07-19-18	25.9d														
A4480	Drainage Pipe -14 @ Sta.1454+50	3.0d	07-19-18	07-24-18	25.9d														
A4490	Drainage Pipe -15 @ Sta.1454+00	3.0d	07-24-18	07-27-18	25.9d														
A4500	Box Culvert - 4 @ Sta.1460+00	3.0d	07-27-18	08-01-18	25.9d														
A4510	Drainage Pipe -17 @ Sta.1474+33	3.0d	08-01-18	08-06-18	25.9d														
A4520	Drainage Pipe -18 @ Sta.1475+00	3.0d	08-06-18	08-09-18	25.9d														
A4530	Drainage Pipe -19 @ Sta.1475+00	3.0d	08-09-18	08-14-18	25.9d														
A4540	Box Culvert - 5 @ Sta.1485+50	5.0d	08-14-18	08-21-18	25.9d														
A4550	Drainage Pipe -20 @ Sta.1502+20	3.0d	08-21-18	08-24-18	25.9d														
A4560	Drainage Pipe -21 @ Sta.1502.50	3.0d	08-24-18	08-29-18	25.9d														
A4570	Drainage Pipe -22 @ Sta.1506+35	3.0d	08-29-18	09-04-18	25.9d														
A4580	Drainage Pipe -23 @ Sta.1506+30	3.0d	09-04-18	09-07-18	25.9d														
A4590	Drainage Pipe -24 @ Sta.1516+32	3.0d	09-07-18	09-12-18	25.9d														
A4600	Drainage Pipe -25 @ Sta.1518+50	3.0d	09-12-18	09-17-18	25.9d														
A4610	Drainage Pipe -26 @ Sta.1519+50	3.0d	09-17-18	09-20-18	25.9d														
A4620	Drainage Pipe -27 @ Sta.1526+80	3.0d	09-20-18	09-25-18	25.9d														
Earthwork		92.0d	06-08-18	10-18-18	26.9d														



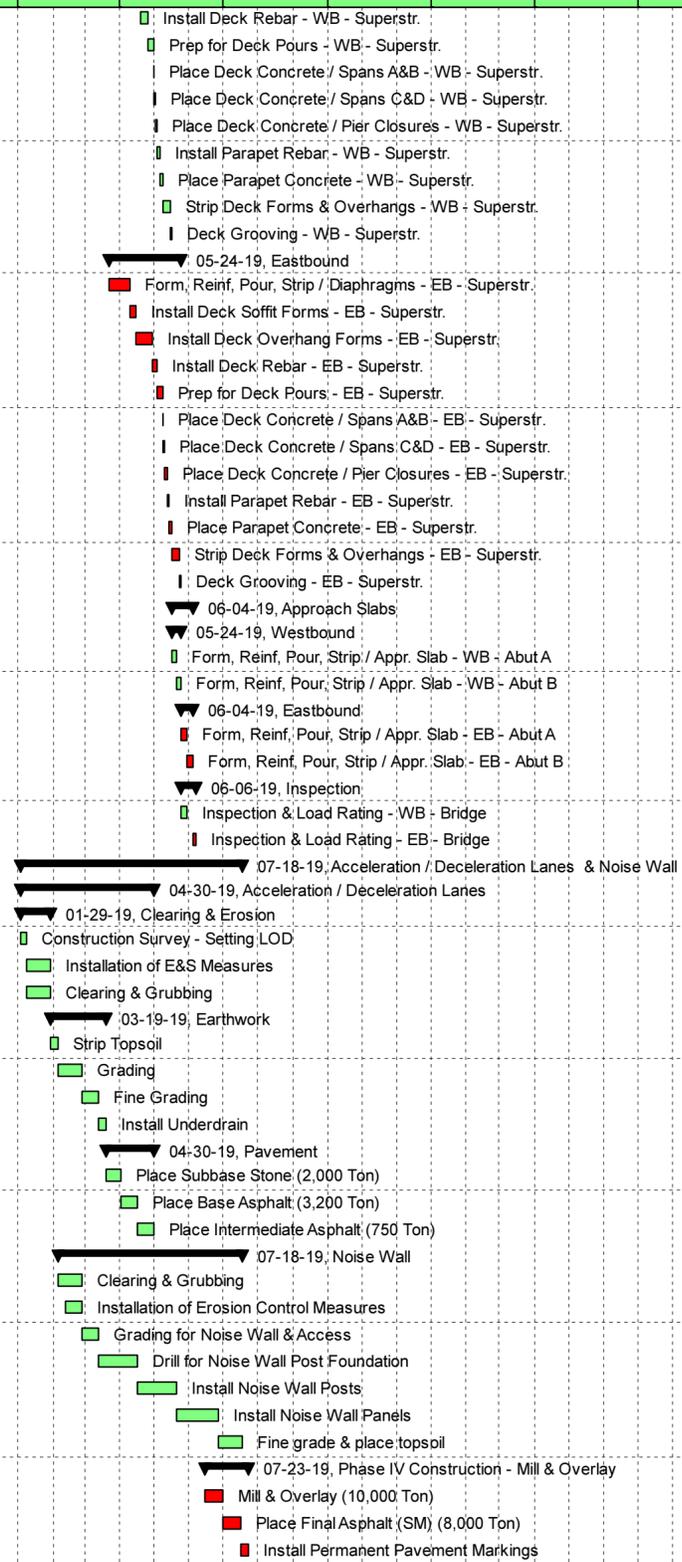
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021		
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A4630	Strip Topsoil	5.0d	06-08-18	06-15-18	75.9d				█ Strip Topsoil											
A4640	Grading (57,000 CY)	20.0d	06-15-18	07-16-18	75.9d				█ Grading (57,000 CY)											
A4650	Borrow (14,000 CY)	7.0d	06-15-18	06-26-18	88.9d				█ Borrow (14,000 CY)											
A4660	Fine Grading	10.0d	09-25-18	10-09-18	25.9d				█ Fine Grading											
A4870	Install Underdrain (22,800 LF)	7.0d	10-09-18	10-18-18	25.9d				█ Install Underdrain (22,800 LF)											
Pavement		24.0d	10-18-18	11-21-18	26.9d				█ 11-21-18, Pavement											
A4670	Place Subbase Stone (13,500 Tons)	10.0d	10-18-18	11-01-18	25.9d				█ Place Subbase Stone (13,500 Tons)											
A4680	Place Base Asphalt (14,500 Tons)	10.0d	11-01-18	11-15-18	26.9d				█ Place Base Asphalt (14,500 Tons)											
A4690	Place Intermediate Asphalt (3,200 Tons)	4.0d	11-15-18	11-21-18	26.9d				█ Place Intermediate Asphalt (3,200 Tons)											
Road Widening - Area - 2 Sta.1565 to Sta.1610		81.1d	03-15-18	07-10-18	121.8d				█ 07-10-18, Road Widening - Area - 2 Sta.1565 to Sta.1610											
Clearing & Erosion Control		22.0d	03-15-18	04-16-18	124.9d				█ 04-16-18, Clearing & Erosion Control											
A4700	Construction Survey - Setting LOD	2.0d	03-15-18	03-19-18	124.9d				█ Construction Survey - Setting LOD											
A4710	Installation of E&S Measures	10.0d	03-19-18	04-02-18	134.9d				█ Installation of E&S Measures											
A4720	Clearing & Grubbing	20.0d	03-19-18	04-16-18	124.9d				█ Clearing & Grubbing											
Drainage		34.0d	04-23-18	06-08-18	121.8d				█ 06-08-18, Drainage											
A4730	Drainage Pipe -27B @ Sta.1583+73	5.0d	04-23-18	04-27-18	120.8d				█ Drainage Pipe -27B @ Sta.1583+73											
A4740	Drainage Pipe -28 @ Sta.1549+71	3.0d	04-30-18	05-02-18	120.8d				█ Drainage Pipe -28 @ Sta.1549+71											
A4750	Drainage Pipe -29 @ Sta.1578+84	3.0d	05-03-18	05-07-18	120.8d				█ Drainage Pipe -29 @ Sta.1578+84											
A4760	Drainage Pipe -30 @ Sta.1578+80	3.0d	05-08-18	05-10-18	120.8d				█ Drainage Pipe -30 @ Sta.1578+80											
A4770	Box Culvert - 6 @ Sta.1587+00	5.0d	05-11-18	05-17-18	120.8d				█ Box Culvert - 6 @ Sta.1587+00											
A4780	Box Culvert - 7 @ Sta.1588+00	5.0d	05-18-18	05-24-18	120.8d				█ Box Culvert - 7 @ Sta.1588+00											
A4790	Box Culvert - 8 @ Sta.1602+18	5.0d	05-25-18	06-01-18	120.8d				█ Box Culvert - 8 @ Sta.1602+18											
A4800	Box Culvert - 9 @ Sta.1602+85	5.0d	06-04-18	06-08-18	120.8d				█ Box Culvert - 9 @ Sta.1602+85											
Earthwork		46.1d	04-16-18	06-20-18	121.8d				█ 06-20-18, Earthwork											
A4810	Strip Topsoil	3.0d	04-16-18	04-19-18	151.1d				█ Strip Topsoil											
A4820	Grading (9,000 CY)	5.0d	04-19-18	04-26-18	151.9d				█ Grading (9,000 CY)											
A4830	Fine Grading	5.0d	06-11-18	06-15-18	121.8d				█ Fine Grading											
A4880	Place Underdrain	3.0d	06-18-18	06-20-18	121.8d				█ Place Underdrain											
Pavement		13.0d	06-21-18	07-10-18	121.8d				█ 07-10-18, Pavement											
A4840	Place Subbase Stone (5,000 Ton)	5.0d	06-21-18	06-27-18	120.8d				█ Place Subbase Stone (5,000 Ton)											
A4850	Place Base Asphalt (8,000 Ton)	6.0d	06-28-18	07-06-18	121.8d				█ Place Base Asphalt (8,000 Ton)											
A4860	Place Intermediate Asphalt (1,800 Ton)	2.0d	07-09-18	07-10-18	121.8d				█ Place Intermediate Asphalt (1,800 Ton)											
ITS & Lighting		147.0d	06-04-18	01-02-19	0.0d				█ 01-02-19, ITS & Lighting											
A5120	Install Conduits & Junction Box - ITS	25.0d	06-04-18	07-10-18	42.0d				█ Install Conduits & Junction Box - ITS											
A5130	Install Conduits - Lighting	6.0d	07-10-18	07-18-18	42.0d				█ Install Conduits - Lighting											
A5140	Install CCTV Foundation	5.0d	07-18-18	07-25-18	42.0d				█ Install CCTV Foundation											
A5150	Install Light Pole Foundation	5.0d	07-25-18	08-01-18	42.0d				█ Install Light Pole Foundation											
A5160	Install Service Panels	4.0d	08-01-18	08-07-18	42.0d				█ Install Service Panels											
A5170	Pull Power, Comm & Lighting Cable	15.0d	10-05-18	10-26-18	0.0d				█ Pull Power, Comm & Lighting Cable											
A5180	Install CCTV Equipment	6.0d	10-26-18	11-05-18	0.0d				█ Install CCTV Equipment											
A5190	Install Cabinet	5.0d	11-05-18	11-12-18	0.0d				█ Install Cabinet											
A5380	Install Light Poles	10.0d	11-12-18	11-28-18	0.0d				█ Install Light Poles											
A5390	Install ITS Poles	5.0d	11-28-18	12-05-18	0.0d				█ Install ITS Poles											
A5400	Splice Fiber Cable	10.0d	12-05-18	12-19-18	0.0d				█ Splice Fiber Cable											
A5410	Energize Service Panels	8.0d	12-19-18	01-02-19	0.0d				█ Energize Service Panels											
Signing		74.0d	07-18-18	10-30-18	42.8d				█ 10-30-18, Signing											
A5090	Install New Ground Mount Signs	5.0d	07-18-18	07-24-18	96.8d				█ Install New Ground Mount Signs											
A5100	Remove Exist Ground Mount Signs	5.0d	07-25-18	07-31-18	96.8d				█ Remove Exist Ground Mount Signs											
A4990	Pour Found OH Sign - Sta.2419+50 WB	7.0d	07-30-18	08-08-18	72.0d				█ Pour Found OH Sign - Sta.2419+50 WB											
A5000	Pour Found OH Sign - Sta.2444+75 WB	7.0d	08-08-18	08-17-18	72.0d				█ Pour Found OH Sign - Sta.2444+75 WB											
A5010	Pour Found OH Sign - Sta.2469+75 WB	7.0d	08-17-18	08-28-18	72.0d				█ Pour Found OH Sign - Sta.2469+75 WB											
A5020	Erect New OH Sign - Sta.2419+50 WB	5.0d	10-08-18	10-12-18	44.8d				█ Erect New OH Sign - Sta.2419+50 WB											
A5060	Erect New OH Sign - Sta.2444+75 WB	5.0d	10-08-18	10-12-18	41.8d				█ Erect New OH Sign - Sta.2444+75 WB											
A5080	Erect New OH Sign - Sta.2469+75 WB	5.0d	10-08-18	10-12-18	44.8d				█ Erect New OH Sign - Sta.2469+75 WB											
A5070	Remove Exist OH Sign - Sta.2468+75 WB	3.0d	10-15-18	10-17-18	41.8d				█ Remove Exist OH Sign - Sta.2468+75 WB											
A5110	Complete Sign Installation	0.0d		10-17-18	41.8d				█ Complete Sign Installation											
A5030	Remove Exist OH Sign - Sta.2418+50 WB	3.0d	10-18-18	10-22-18	41.8d				█ Remove Exist OH Sign - Sta.2418+50 WB											
A5040	Remove Signs from Exist OH Sign - Sta.2429+50 WB	3.0d	10-23-18	10-25-18	41.8d				█ Remove Signs from Exist OH Sign - Sta.2429+50 WB											
A5050	Remove Exist OH Sign - Sta.2438+25 WB	3.0d	10-26-18	10-30-18	41.8d				█ Remove Exist OH Sign - Sta.2438+25 WB											
Phase III Construction - Bridge Rehabilitation & Roadwidening Outside Me		139.0d	01-02-19	07-18-19	3.0d				█ 07-18-19, Phase III Construction - Bridge Rehabilitation & Roadwidening Outside Median											



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021			
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A5425	Traffic Switch to the newly built Bridge	1.0d	01-02-19	01-03-19	0.0d																
A5435	Completion of Phase III Construction	0.0d		06-14-19	0.0d																
Bridge Rehabilitation																					
Bridge Access																					
A2170	Remove Construction Access - WB/EB - Median	6.0d	06-06-19	06-14-19	0.0d																
Demo																					
Westbound																					
A3340	Decks & Parapet - WB - Superstr.	20.0d	01-03-19	01-31-19	0.0d																
A3360	Approach Slab - WB - Abut A	1.0d	02-28-19	03-01-19	0.0d																
A3380	Approach Slab - WB - Abut B	1.0d	03-04-19	03-05-19	0.0d																
A3400	Shear Blocks - WB - Piers	6.0d	03-06-19	03-14-19	0.0d																
Eastbound																					
A3350	Decks & Parapet - EB - Superstr.	20.0d	01-31-19	02-28-19	0.0d																
A3370	Approach Slab - EB - Abut A	1.0d	03-01-19	03-04-19	0.0d																
A3390	Approach Slab - EB - Abut B	1.0d	03-05-19	03-06-19	0.0d																
A3410	Shear Blocks - EB - Piers	6.0d	03-14-19	03-22-19	0.0d																
Structure Excavation																					
Westbound																					
A3420	Excavate - WB - Abut A	1.0d	03-22-19	03-25-19	11.0d																
A3440	Excavate WB - Abut B	1.0d	03-26-19	03-27-19	25.0d																
Eastbound																					
A3430	Excavate EB - Abut A	1.0d	03-25-19	03-26-19	18.0d																
A3450	Excavate EB - Abut B	1.0d	03-27-19	03-28-19	32.0d																
Abutment Neat																					
Westbound																					
A3460	Backwall Reconstruction - WB - Abut A	8.0d	03-25-19	04-04-19	11.0d																
A3480	Backwall Reconstruction - WB - Abut B	8.0d	04-16-19	04-26-19	11.0d																
Eastbound																					
A3470	Backwall Reconstruction - EB - Abut A	8.0d	04-04-19	04-16-19	11.0d																
A3490	Backwall Reconstruction - EB - Abut B	8.0d	04-26-19	05-08-19	11.0d																
Backfill																					
Westbound																					
A3500	Place Select Backfill - WB - Abut A	2.0d	04-04-19	04-08-19	29.0d																
A3520	Place Select Backfill - WB - Abut B	2.0d	04-26-19	04-30-19	15.0d																
Eastbound																					
A3510	Place Select Backfill - EB - Abut A	2.0d	04-30-19	05-02-19	15.0d																
A3530	Place Select Backfill - EB - Abut B	2.0d	05-08-19	05-10-19	11.0d																
Shoring																					
Westbound																					
A3540	Remove Temp Shoring - WB - Abut A	1.0d	05-10-19	05-13-19	11.0d																
A3560	Remove Temp Shoring - WB - Abut B	1.0d	05-14-19	05-15-19	11.0d																
Eastbound																					
A3550	Remove Temp Shoring - EB - Abut A	1.0d	05-13-19	05-14-19	11.0d																
A3570	Remove Temp Shoring - EB - Abut B	1.0d	05-15-19	05-16-19	11.0d																
Repairs																					
Westbound																					
A3580	Jacking & Blocking - WB - Superstr.	8.0d	03-14-19	03-26-19	16.0d																
A3600	Anchor Bolt & Bearing Replacement - WB - Superstr.	10.0d	03-26-19	04-09-19	16.0d																
A3620	Beam Repairs - WB - Superstr.	3.0d	04-09-19	04-12-19	16.0d																
A3640	Diaphragm Repairs - WB - Superstr.	5.0d	04-12-19	04-19-19	16.0d																
A3660	Substructure Repairs - WB - Superstr.	8.0d	04-19-19	05-01-19	16.0d																
Eastbound																					
A3590	Jacking & Blocking - EB - Superstr.	8.0d	03-22-19	04-03-19	11.0d																
A3610	Anchor Bolt & Bearing Replacement - EB - Superstr.	10.0d	04-03-19	04-17-19	11.0d																
A3630	Beam Repairs - EB - Superstr.	3.0d	04-17-19	04-22-19	11.0d																
A3650	Diaphragm Repairs - EB - Superstr.	5.0d	04-22-19	04-29-19	11.0d																
A3670	Substructure Repairs - EB - Superstr.	8.0d	04-29-19	05-09-19	11.0d																
Superstructure																					
Westbound																					
A3680	Form, Reinf, Pour, Strip / Diaphragms - WB - Superstr.	12.0d	03-14-19	04-01-19	5.0d																
A3700	Install Deck Soffit Forms - WB - Superstr.	4.0d	04-01-19	04-05-19	5.0d																
A3720	Install Deck Overhang Forms - WB - Superstr.	10.0d	04-05-19	04-19-19	5.0d																



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021		
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A3740	Install Deck Rebar - WB - Superstr.	4.0d	04-19-19	04-25-19	5.0d															
A3760	Prep for Deck Pours - WB - Superstr.	3.0d	04-25-19	04-30-19	5.0d															
A3770	Place Deck Concrete / Spans A&B - WB - Superstr.	1.0d	04-30-19	05-01-19	5.0d															
A3780	Place Deck Concrete / Spans C&D - WB - Superstr.	1.0d	05-01-19	05-02-19	5.0d															
A3790	Place Deck Concrete / Pier Closures - WB - Superstr.	1.0d	05-02-19	05-03-19	5.0d															
A3840	Install Parapet Rebar - WB - Superstr.	1.0d	05-03-19	05-06-19	5.0d															
A3860	Place Parapet Concrete - WB - Superstr.	2.0d	05-06-19	05-08-19	5.0d															
A3880	Strip Deck Forms & Overhangs - WB - Superstr.	5.0d	05-08-19	05-15-19	5.0d															
A3900	Deck Grooving - WB - Superstr.	1.0d	05-15-19	05-16-19	5.0d															
Eastbound		45.0d	03-22-19	05-24-19	0.0d															
A3690	Form, Reinf, Pour, Strip / Diaphragms - EB - Superstr.	12.0d	03-22-19	04-09-19	0.0d															
A3710	Install Deck Soffit Forms - EB - Superstr.	4.0d	04-09-19	04-15-19	0.0d															
A3730	Install Deck Overhang Forms - EB - Superstr.	10.0d	04-15-19	04-29-19	0.0d															
A3750	Install Deck Rebar - EB - Superstr.	4.0d	04-29-19	05-03-19	0.0d															
A3800	Prep for Deck Pours - EB - Superstr.	3.0d	05-03-19	05-08-19	0.0d															
A3810	Place Deck Concrete / Spans A&B - EB - Superstr.	1.0d	05-08-19	05-09-19	0.0d															
A3820	Place Deck Concrete / Spans C&D - EB - Superstr.	1.0d	05-09-19	05-10-19	0.0d															
A3830	Place Deck Concrete / Pier Closures - EB - Superstr.	1.0d	05-10-19	05-13-19	0.0d															
A3850	Install Parapet Rebar - EB - Superstr.	1.0d	05-13-19	05-14-19	0.0d															
A3870	Place Parapet Concrete - EB - Superstr.	2.0d	05-14-19	05-16-19	0.0d															
A3890	Strip Deck Forms & Overhangs - EB - Superstr.	5.0d	05-16-19	05-23-19	0.0d															
A3910	Deck Grooving - EB - Superstr.	1.0d	05-23-19	05-24-19	0.0d															
Approach Slabs		12.0d	05-16-19	06-04-19	0.0d															
Westbound		6.0d	05-16-19	05-24-19	5.0d															
A3920	Form, Reinf, Pour, Strip / Appr. Slab - WB - Abut A	3.0d	05-16-19	05-21-19	5.0d															
A3940	Form, Reinf, Pour, Strip / Appr. Slab - WB - Abut B	3.0d	05-21-19	05-24-19	5.0d															
Eastbound		6.0d	05-24-19	06-04-19	0.0d															
A3930	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut A	3.0d	05-24-19	05-30-19	0.0d															
A3950	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut B	3.0d	05-30-19	06-04-19	0.0d															
Inspection		8.0d	05-24-19	06-06-19	0.0d															
A3960	Inspection & Load Rating - WB - Bridge	3.0d	05-24-19	05-30-19	5.0d															
A3970	Inspection & Load Rating - EB - Bridge	2.0d	06-04-19	06-06-19	0.0d															
Acceleration / Deceleration Lanes & Noise Wall		138.0d	01-03-19	07-18-19	3.0d															
Acceleration / Deceleration Lanes		83.0d	01-03-19	04-30-19	58.0d															
Clearing & Erosion		18.0d	01-03-19	01-29-19	58.0d															
A5530	Construction Survey - Setting LOD	3.0d	01-03-19	01-08-19	58.0d															
A5540	Installation of E&S Measures	15.0d	01-08-19	01-29-19	58.0d															
A5550	Clearing & Grubbing	15.0d	01-08-19	01-29-19	58.0d															
Earthwork		35.0d	01-29-19	03-19-19	58.0d															
A5560	Strip Topsoil	5.0d	01-29-19	02-05-19	58.0d															
A5570	Grading	15.0d	02-05-19	02-26-19	58.0d															
A5580	Fine Grading	10.0d	02-26-19	03-12-19	58.0d															
A5590	Install Underdrain	5.0d	03-12-19	03-19-19	58.0d															
Pavement		30.0d	03-19-19	04-30-19	58.0d															
A5600	Place Subbase Stone (2,000 Ton)	10.0d	03-19-19	04-02-19	58.0d															
A5610	Place Base Asphalt (3,200 Ton)	10.0d	04-02-19	04-16-19	58.0d															
A5620	Place Intermediate Asphalt (750 Ton)	10.0d	04-16-19	04-30-19	58.0d															
Noise Wall		115.0d	02-05-19	07-18-19	3.0d															
A4260	Clearing & Grubbing	15.0d	02-05-19	02-26-19	3.0d															
A4270	Installation of Erosion Control Measures	10.0d	02-12-19	02-26-19	3.0d															
A4280	Grading for Noise Wall & Access	10.0d	02-26-19	03-12-19	3.0d															
A4290	Drill for Noise Wall Post Foundation	25.0d	03-12-19	04-16-19	3.0d															
A4300	Install Noise Wall Posts	25.0d	04-16-19	05-21-19	3.0d															
A4310	Install Noise Wall Panels	25.0d	05-21-19	06-26-19	3.0d															
A4320	Fine grade & place topsoil	15.0d	06-26-19	07-18-19	3.0d															
Phase IV Construction - Mill & Overlay		26.0d	06-14-19	07-23-19	0.0d															
A5440	Mill & Overlay (10,000 Ton)	11.0d	06-14-19	07-01-19	0.0d															
A5430	Place Final Asphalt (SM) (8,000 Ton)	10.0d	07-01-19	07-16-19	0.0d															
A5450	Install Permanent Pavement Markings	5.0d	07-16-19	07-23-19	0.0d															



I-64 Widening Exit 200 to 205

Critical Path

Data Date:08-28-17

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2018				2019				2020				2021	
						Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
A1000	Notice to Proceed	0.0d	08-28-17		0.0d														
A1810	ROW, Grading & Drainage Work Package	45.0d	08-28-17	10-30-17	0.0d														
A1820	Prepare ROW Plan Sheets	10.0d	10-31-17	11-13-17	0.0d														
A1830	Preliminary ROW/Easement Acquisition Effort (Title research, f	45.0d	11-14-17	01-19-18	0.0d														
A1840	Design QA/QC Review of Roadway Plans	5.0d	01-22-18	01-26-18	0.0d														
A1850	Prepare Roadway Plans for Submission	2.0d	01-29-18	01-30-18	0.0d														
A2050	Preliminary ITS / Lighting / Signage / Striping Plan	45.0d	01-31-18	04-03-18	0.0d														
A5490	Construction Start	0.0d	03-01-18*		0.0d														
A2060	QA/QC Preliminary ITS / Lighting / Signage / Striping Plan	5.0d	04-04-18	04-10-18	0.0d														
A2070	VDOT Review ITS / Lighting / Signage / Striping Plan	21.0d	04-11-18	04-27-18	0.0d														
A5420	Electric Power Request/Installation & Inspection	112.0d	04-27-18	10-05-18	0.0d														
A5170	Pull Power, Comm & Lighting Cable	15.0d	10-05-18	10-26-18	0.0d														
A5180	Install CCTV Equipment	6.0d	10-26-18	11-05-18	0.0d														
A5190	Install Cabinet	5.0d	11-05-18	11-12-18	0.0d														
A5380	Install Light Poles	10.0d	11-12-18	11-28-18	0.0d														
A5390	Install ITS Poles	5.0d	11-28-18	12-05-18	0.0d														
A5400	Splice Fiber Cable	10.0d	12-05-18	12-19-18	0.0d														
A5410	Energize Service Panels	8.0d	12-19-18	01-02-19	0.0d														
A5425	Traffic Switch to the newly built Bridge	1.0d	01-02-19	01-03-19	0.0d														
A3340	Decks & Parapet - WB - Superstr.	20.0d	01-03-19	01-31-19	0.0d														
A3350	Decks & Parapet - EB - Superstr.	20.0d	01-31-19	02-28-19	0.0d														
A3360	Approach Slab - WB - Abut A	1.0d	02-28-19	03-01-19	0.0d														
A3370	Approach Slab - EB - Abut A	1.0d	03-01-19	03-04-19	0.0d														
A3380	Approach Slab - WB - Abut B	1.0d	03-04-19	03-05-19	0.0d														
A3390	Approach Slab - EB - Abut B	1.0d	03-05-19	03-06-19	0.0d														
A3400	Shear Blocks - WB - Piers	6.0d	03-06-19	03-14-19	0.0d														
A3410	Shear Blocks - EB - Piers	6.0d	03-14-19	03-22-19	0.0d														
A3690	Form, Reinf, Pour, Strip / Diaphragms - EB - Superstr.	12.0d	03-22-19	04-09-19	0.0d														
A3710	Install Deck Soffit Forms - EB - Superstr.	4.0d	04-09-19	04-15-19	0.0d														
A3730	Install Deck Overhang Forms - EB - Superstr.	10.0d	04-15-19	04-29-19	0.0d														
A3750	Install Deck Rebar - EB - Superstr.	4.0d	04-29-19	05-03-19	0.0d														
A3800	Prep for Deck Pours - EB - Superstr.	3.0d	05-03-19	05-08-19	0.0d														
A3810	Place Deck Concrete / Spans A&B - EB - Superstr.	1.0d	05-08-19	05-09-19	0.0d														
A3820	Place Deck Concrete / Spans C&D - EB - Superstr.	1.0d	05-09-19	05-10-19	0.0d														
A3830	Place Deck Concrete / Pier Closures - EB - Superstr.	1.0d	05-10-19	05-13-19	0.0d														
A3850	Install Parapet Rebar - EB - Superstr.	1.0d	05-13-19	05-14-19	0.0d														
A3870	Place Parapet Concrete - EB - Superstr.	2.0d	05-14-19	05-16-19	0.0d														
A3890	Strip Deck Forms & Overhangs - EB - Superstr.	5.0d	05-16-19	05-23-19	0.0d														
A3910	Deck Grooving - EB - Superstr.	1.0d	05-23-19	05-24-19	0.0d														
A3930	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut A	3.0d	05-24-19	05-30-19	0.0d														
A3950	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut B	3.0d	05-30-19	06-04-19	0.0d														
A3970	Inspection & Load Rating - EB - Bridge	2.0d	06-04-19	06-06-19	0.0d														
A2170	Remove Construction Access - WB/EB - Median	6.0d	06-06-19	06-14-19	0.0d														
A5440	Mill & Overlay (10,000 Ton)	11.0d	06-14-19	07-01-19	0.0d														
A5435	Completion of Phase III Construction	0.0d		06-14-19	0.0d														
A5430	Place Final Asphalt (SM) (8,000 Ton)	10.0d	07-01-19	07-16-19	0.0d														
A5450	Install Permanent Pavement Markings	5.0d	07-16-19	07-23-19	0.0d														
A5480	Punch List	22.0d	07-23-19	08-22-19	0.0d														
A1010	Final Completion	0.0d		08-22-19*	0.0d														



4.2.4.2 | Proposal Schedule Narrative



4.2.4.2 PROPOSAL SCHEDULE NARRATIVE

The Design-Build Team has used Primavera scheduling software and developed a Critical Path Method (CPM) schedule based on the RFP information, available resources, design concepts and construction means that the Design-Build Team has chosen. The Design-Build Team believes in participatory planning starting from the Foreman level to the top project stakeholder's level. All parties from the Design-Build Team including designer, subcontractors, and suppliers have input into this proposal schedule. For a timely delivery of the project, an effective schedule that depicts how the project is managed and built is very important. Hence, this proposal schedule is a result of coordination between all Design-Build Team members.

Design

Overall Plan and Strategy for Design Activities

We have employed several strategies with regard to up-front design, permitting, and approval tasks to help expedite the start of construction activities onsite. We will submit a Clearing and Grading Work Package to expedite commencement of tree cutting, clearing, grading and deep drainage installation prior to final plan approval. This initial package will also include the required shoulder strengthening to shift traffic for traffic barrier installation. We will obtain a VPDES permit based on a conservative estimate of disturbed project area and preliminary plans as allowed by the regulations. Project plans will be submitted in subsequent packages to accommodate multiple review cycles, for items of work such as roadway, bridge, noise walls, and ITS, without affecting grading and surface drainage operations being constructed with the initial work package. Twenty-one day turnaround times for concurrent VDOT and FHWA reviews per Exhibit 1 to Part 3, Sections 3.1.2 are included in this schedule.

Field Investigations and Geotechnical

Immediately upon receipt of the notice to proceed, the Design and Construction Teams will start working on scope validation in conjunction with VDOT while the field survey update takes place. This update will include, but not be limited to, a re-evaluation of property information, validation of pavement elevations and locations, and the location of existing underground utilities by a subsurface field investigation. Concurrent with the field survey, geotechnical investigations will commence with the submittal of a boring plan for VDOT informational purposes and the stakeout of the boring locations in the field. The roadway design will also immediately commence concurrent with the survey update and the geotechnical investigation. The design will be adjusted as necessary to accommodate the results of these field investigations.

Environmental Permitting

The schedule has been developed to allow adequate information to be developed for the required environmental permits and Phase 1 Environmental Site Assessment. Time has been allocated for



the required permits to be coordinated and secured as required by the schedule of construction activities.

Noise Analysis

The project schedule includes a detailed breakdown of all required elements to satisfy the NEPA noise analysis requirements. These include not only the required field investigations and noise modelling, but also a separate VDOT and FHWA review and approval prior to a public comment period to determine the impacted property owner's opinion of the proposed noise abatement.

Utility Relocation

Dry utility relocation will be carefully coordinated commencing with NTP and utilizing the RFP plans to allow the utility owners as much time as possible to develop the appropriate relocation plans.

Final Design

During bridge construction, final roadway, signing, striping, ITS, and noise plans will be developed and submitted to VDOT for review. This will allow AFC roadway plans to be delivered in early June of 2018 as construction activities are ready to be fully underway.

Construction

The first construction phase of the Proposal Schedule begins includes the installation of pull off areas, outside shoulder work, shifting traffic, and installing temporary concrete barrier. Phase 2 construction will begin in March 2018 with clearing operations and bridge construction followed by roadway construction beginning in early June 2018.

Work Breakdown Structure (WBS)

WBS of the proposal schedule is structured based on the overall timeline of project deliveries. The Level 1 WBS is given to the project name, I-64 Widening, Exit 200 to 205, which breakdowns to Level 2 divisions. Project milestones takes the first part of Level 2 WBS position, followed by Design and Construction. A brief description of the WBS Level 2 division of the proposal schedule is shown below.

1. **Project Milestones** – the major project milestone are listed under this WBS as per the requirement of the RFP. This WBS includes the contractual milestone dates such as Notice to proceed and Final Completion.
2. **General Conditions** – Work activities associated with the contractual obligation of Design-Build Team to administer the project, quality control and quality assurance efforts to meet VDOT's minimum requirements for Design Build projects are included in this section. The section will be used to show the monthly payment applications under the respective payment line items when the baseline schedule is developed.



3. **Design, Right-of-Way & Permitting** – under this WBS all the design efforts with their respective submission and review/approval timeline is included. Breakdown of this division is shown in the table below.
4. **Engineering & Procurement** – delivery of project schedules, meetings as per VDOT’s minimum requirements for QA & QC on Design-Build projects, boring for foundation design, shop drawings, and fabrication of long lead materials are included in this WBS.
5. **Mobilization/Demobilization/Punchlist** – activities associated with starting and closing the construction phase of the project is listed under this WBS section.
6. **Construction** – this WBS section depicts the construction activities grouped by Phase and location of the work area.

The table below is a summary of the WBS from Level 2 down to Level 3.

Level 2 WBS	WBS Level 3
Project Milestones	<i>Project Milestones</i>
General Conditions	<i>General Conditions</i> <ul style="list-style-type: none"> Scope Validation Project Management Design Management Quality Assurance (QA) Quality Control (QC) Construction Management
Design, Right-of-way & Permitting	<i>Design, Right-of-way & Permitting</i> <ul style="list-style-type: none"> Design Milestones QA/QC Plan Survey Geotechnical Study, Analysis and Reports Noise Analysis Environmental Permits Utility Relocation/Coordination Advance MOT/Clearing/E&S Work Package (AWP) RW/Grading and Drainage Work Package Bridge ITS/Lighting/Signing/Striping Final Roadway
Engineering & Procurement	<i>Engineering</i> <ul style="list-style-type: none"> Preparatory Meetings Project Schedules Bridge Submittals ITS and Lighting Overhead Signs Noise Wall <i>Procurement</i>



	<ul style="list-style-type: none"> Bridge ITS and Lighting Overhead Signs Noise Wall
Mobilization/Demobilization/Punchlist	<i>Mobilization/Demobilization/Punchlist</i>
Construction	<p><i>Construction</i></p> <p><i>Phase 1</i></p> <ul style="list-style-type: none"> Maintenance of Traffic Shoulder Rehabilitation & Temp Pavement <p><i>Phase 2</i></p> <ul style="list-style-type: none"> Bridge Widening Roadway Widening Inside Median <p><i>Phase 3</i></p> <ul style="list-style-type: none"> Bridge Rehabilitation Acceleration/Deceleration Lanes & Noise Wall <p><i>Phase 4</i></p> <ul style="list-style-type: none"> Mill and Overlay

Key Project Milestones

The key project milestones that were listed in the RFP document are included in the Proposal Schedule and the Design-Build Team is committed to deliver on time. Interim milestones for Design and Construction Phase are also added the Proposal Schedule.

Key Contract Milestones	Date
Notice to Proceed	August 28, 2017
Final Completion	August 22, 2019

Calendars

The following project specific calendars are used and assigned to each activity of the Proposal Schedule. This approach has helped the schedule to account for the actual contractual timeline for review and approval of design deliveries, the normal working days per week, holidays, and the winter weather.



Calendar “**I-64 – Calendar Days**” assumed 7 calendar days per week of which is commonly assigned to VDOT’s review and approval activity since the contract documents call for 21 calendar days of review.

Calendar “**I-64-5D/Wk+HD**” – assumed 5 working days per week but non-work days during holidays. The calendar is assigned to all administrative, design, and construction activities except for weather-dependent construction activities such as grading, asphalt paving, and pavement marking. Instead of normal adverse weather days, the Design-Build Team reserved Saturdays to be used whenever needed.

Calendar “**I-64-5D/Wk+HD+WSD**” – assumed 5 working days per week but non-work days during holidays and winter season shutdown period. The winter shutdown period is assumed from middle of December to middle of March per each calendar year. This calendar is assigned to grading, asphalt, and pavement marking activities.

Construction Sequencing

The Design-Build Team used the bridges as a landmark to divide the roadway construction area of the project into two areas. Area 1 is composed of work to be constructed to the west of the bridges. Area 2 represents work east of the bridges. The bridge construction is broken into westbound and eastbound respectively.

The following is a general description of the proposed sequence of construction.

Phase 1 – The first phase of construction will involve installation of Maintenance of Traffic devices as well as construction of pull-off areas along the corridor. On completion of initial MOT set up, traffic will be shifted toward the outside shoulder to facilitate installation of temporary concrete barrier.

Phase 2 – Once the concrete barrier is installed, erosion and sediment control measures will be installed ahead of clearing operations. Clearing will begin at the bridges and progress east and west respectively. Bridge construction operations will follow closely behind once adequate access has been achieved for construction crews. Roadway, drainage, ITS, lighting, and overhead sign construction will begin near the end of clearing operations and continue until the Phase 2 bridge construction is complete and traffic is switched on to the newly constructed roadway.

Phase 3 – Once traffic is travelling on the new roadway, rehabilitation of the existing structure will be performed along with the noise wall and the acceleration/deceleration lane improvements.

Phase 4 – Phase 4 will include final paving and pavement marking operations.

Critical Path

The critical path is runs through the design phase to the ITS/CCTV/Lighting installation followed by the Phase 3 bridge rehabilitation and then to the final pavement installation. A



filtered list of all critical activities is shown on the Critical Path printout of the Proposal Schedule whose summary of Critical Path activities is listed below:

A1000	Notice to Proceed
A1810	ROW, Grading & Drainage Work Package
A1820	Prepare ROW Plan Sheets
A1830	Preliminary ROW/Easement Acquisition Effort (Title research, BAR)
A1840	Design QA/QC Review of Roadway Plans
A1850	Prepare Roadway Plans for Submission
A2050	Preliminary ITS / Lighting / Signage / Striping Plan
A5490	Construction Start
A2060	QA/QC Preliminary ITS / Lighting / Signage / Striping Plan
A2070	VDOT Review ITS / Lighting / Signage / Striping Plan
A5420	Electric Power Request/Installation & Inspection
A5170	Pull Power, Comm & Lighting Cable
A5180	Install CCTV Equipment
A5190	Install Cabinet
A5380	Install Light Poles
A5390	Install ITS Poles
A5400	Splice Fiber Cable
A5410	Energize Service Panels
A5425	Traffic Switch to the newly built Bridge
A3340	Decks & Parapet - WB - Superstr.
A3350	Decks & Parapet - EB - Superstr.
A3360	Approach Slab - WB - Abut A
A3370	Approach Slab - EB - Abut A
A3380	Approach Slab - WB - Abut B
A3390	Approach Slab - EB - Abut B
A3400	Shear Blocks - WB - Piers
A3410	Shear Blocks - EB - Piers
A3690	Form, Reinf, Pour, Strip / Diaphragms - EB - Superstr.
A3710	Install Deck Soffit Forms - EB - Superstr.
A3730	Install Deck Overhang Forms - EB - Superstr.
A3750	Install Deck Rebar - EB - Superstr.
A3800	Prep for Deck Pours - EB - Superstr.
A3810	Place Deck Concrete / Spans A&B - EB - Superstr.
A3820	Place Deck Concrete / Spans C&D - EB - Superstr.
A3830	Place Deck Concrete / Pier Closures - EB - Superstr.
A3850	Install Parapet Rebar - EB - Superstr.
A3870	Place Parapet Concrete - EB - Superstr.
A3890	Strip Deck Forms & Overhangs - EB - Superstr.
A3910	Deck Grooving - EB - Superstr.



A3930	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut A
A3950	Form, Reinf, Pour, Strip / Appr. Slab - EB - Abut B
A3970	Inspection & Load Rating - EB - Bridge
A2170	Remove Construction Access - WB/EB - Median
A5440	Mill & Overlay (10,000 Ton)
A5435	Completion of Phase III Construction
A5430	Place Final Asphalt (SM) (8,000 Ton)
A5450	Install Permanent Pavement Markings
A5480	Punch List
A1010	Final Completion

Critical Path Management

The Design-Build Team will manage the critical path consistently throughout the project lifecycle both during design development and construction phase.

- During the design phase, the Design-Build Team will identify critical activities and allocate the necessary resources before assigning to the non-critical activities.
- Design-Build Team will highlight critical activities and communicate those to project stakeholders and regulatory authorities during any design review and approval process. The Design-Build Team will also address comments as promptly as possible
- The construction QA/QC Team will play a part in the critical path management by making a timely decision related to critical activities
- The Design-Build Team will apply the past lessons-learned experience to make sure critical activities are completed early, or they are on schedule
- Schedule and progress of each critical and near critical activities will be monitored and controlled by the Design-Build Team throughout the project lifecycle

Conclusion

The Design-Build Team will continue to review the work scope as more detailed information is uncovered during the scope validation period. Likewise, the baseline schedule will be developed to account for any changes that will impact the completion of the project. The WBS structures listed under General Conditions such as “Project Management,” “Design Management,” “QA,” and “QC” will be used when the baseline schedule is developed. They will be utilized for the monthly billings activities associated with the project management and QA/QC efforts.



4.0.1.1 | Letter of Submittal and Attachments Checklist



ATTACHMENT 4.0.1.1

I-64 WIDENING EXIT 200 TO 205, CONTRACT ID NO. C00107458DB95

LETTER OF SUBMITTAL AND ATTACHMENTS CHECKLIST

Offerors shall furnish a copy of this Letter of Submittal Checklist, with the page references added, with the Letter of Submittal.

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Letter of Submittal and Attachments Checklist	Attachment 4.0.1.1	Section 4.0.1.1	APPENDIX Page i-ii
Acknowledgement of RFP, Revisions, and/or Addenda	Attachment 3.6 (Form C-78- RFP)	Sections 3.6, 4.0.1.1	APPENDIX 3.6 Form C-78-RFP
Letter of Submittal	NA	Sections 4.1	Page 1
Letter of Submittal on Offeror's letterhead	NA	Section 4.1.1	Page 1
Offeror's official representative information	NA	Section 4.1.1	Page 1
Authorized representative's original signature	NA	Section 4.1.1	Page 1
Declaration of intent	NA	Section 4.1.2	Page 1
120 day declaration	yes	Section 4.1.3	Page 1
Point of Contact information	yes	Section 4.1.4	Page 1
Principal Officer information	NA	Section 4.1.5	Page 1
Final Completion Date	NA	Section 4.1.6	Page 1
Proposal Payment Agreement or Waiver of Proposal Payment	Attachment 9.3.1 or 9.3.2	Section 4.1.7	APPENDIX 9.3.1 Payment Agreement
Certification Regarding Debarment Forms	Attachment 11.8.6(a) Attachment 11.8.6(b)	Section 4.1.8	APPENDIX 11.8.6 (a) and (b) Debarment Forms
Written statement of percent DBE participation	NA	Section 4.1.9	Page 1

ATTACHMENT 4.0.1.1

I-64 WIDENING EXIT 200 TO 205, CONTRACT ID NO. C00107458DB95

LETTER OF SUBMITTAL AND ATTACHMENTS CHECKLIST

Technical Proposal Component	Form (if any)	RFP Part 1 Cross Reference	Page Reference
Attachments to the Letter of Submittal	NA	Section 4.2	Pages 2-58
Confirmation that the information provided in the SOQ submittal remains true and accurate or indicates that any requested changes were previously approved by VDOT	NA	Section 4.2.1	Page 2
Organizational chart with any updates since the SOQ submittal clearly identified	NA	Section 4.2.1	Page 9
Revised narrative when organizational chart includes updates since the SOQ submittal	NA	Section 4.2.1	Pages 2-10
Conceptual Roadway Plans – Plan View	NA	Section 4.2.2	Pages 11-33
Conceptual Roadway Plans – Typical Sections	NA	Section 4.2.2	Pages 11-33
Conceptual Structural Plans – Elevation View	NA	Section 4.2.3	Pages 34-40
Conceptual Structural Plans – Transverse Section	NA	Section 4.2.3	Pages 34-40
Conceptual Structural Plans – Abutment and Pier Configurations	NA	Section 4.2.3	Pages 34-40
Proposal Schedule	NA	Section 4.2.4	Pages 41-58
Proposal Schedule	NA	Section 4.2.4.1	Pages 41-51
Proposal Schedule Narrative	NA	Section 4.2.4.2	Pages 52-58
Proposal Schedule in electronic format (CD-ROM)	NA	Section 4.2.4	CD-ROM

3.6, 4.0.1.1 | Acknowledgement of RFP, Revisions, and/or Addenda



ATTACHMENT 3.6

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

RFP NO. C000107458DB95
PROJECT NO.: 0064-043-602

ACKNOWLEDGEMENT OF RFP, REVISION AND/OR ADDENDA

Acknowledgement shall be made of receipt of the Request for Proposals (RFP) and/or any and all revisions and/or addenda pertaining to the above designated project which are issued by the Department prior to the Letter of Submittal submission date shown herein. Failure to include this acknowledgement in the Letter of Submittal may result in the rejection of your proposal.

By signing this Attachment 3.6, the Offeror acknowledges receipt of the RFP and/or following revisions and/or addenda to the RFP for the above designated project which were issued under cover letter(s) of the date(s) shown hereon:

1. Cover letter of RFP – March 17, 2017
(Date)
2. Cover letter of RFP Addendum No.1 – April 20, 2017
(Date)
3. Cover letter of RFP Addendum No. 2 – May 17, 2017
(Date)
4. Cover letter of RFP Addendum No. 3 – June 8, 2017
(Date)

Ellen Sines
SIGNATURE

6/20/17
DATE

To Ellen Sines. DBIA
PRINTED NAME

Vice President,
Project Development,
CORMAN
CONSTRUCTION,
TITLE

Attachment 9.3.1 | Proposal Payment Agreement



ATTACHMENT 9.3.1
PROPOSAL PAYMENT AGREEMENT

THIS PROPOSAL PAYMENT AGREEMENT (this “Agreement”) is made and entered into as of this 20th day of June, 2017, by and between the Virginia Department of Transportation (“VDOT”), and Corman-Branch, a Joint Venture (“Offeror”).

WITNESSETH:

WHEREAS, Offeror is one of the entities who submitted Statements of Qualifications (“SOQs”) pursuant to VDOT’s **November 3, 2016** Request for Qualifications (“RFQ”) and was invited to submit proposals in response to a Request for Proposals (“RFP”) for the **I-64 Widening Exit 200 to 205, Project No. 0064-043-602** (“Project”), under a design-build contract with VDOT (“Design-Build Contract”); and

WHEREAS, as part of the procurement process for the Project, Offeror has already provided and/or furnished to VDOT, and may continue to provide and/or furnish to VDOT, certain intellectual property, materials, information and ideas, including, but not limited to, such matters that are: (a) conveyed verbally and in writing during proprietary meetings or interviews; and (b) contained in, related to or associated with Offeror’s proposal, including, but not limited to, written correspondence, designs, drawings, plans, exhibits, photographs, reports, printed material, tapes, electronic disks, or other graphic and visual aids (collectively “Offeror’s Intellectual Property”); and

WHEREAS, VDOT is willing to provide a payment to Offeror, subject to the express conditions stated in this Agreement, to obtain certain rights in Offeror’s Intellectual Property, provided that Offeror submits a proposal that VDOT determines to be responsive to the RFP (“Offeror’s Proposal”), and either (a) Offeror is not awarded the Design-Build Contract; or (b) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror; and

WHEREAS, Offeror wishes to receive the payment offered by VDOT, in exchange for granting VDOT the rights set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement and other good and valuable consideration, the receipt and adequacy of which are acknowledged by the parties, the parties agree as follows:

1. **VDOT's Rights in Offeror's Intellectual Property.** Offeror hereby conveys to VDOT all rights, title and interest, free and clear of all liens, claims and encumbrances, in Offeror's Intellectual Property, which includes, without restriction or limitation, the right of VDOT, and anyone contracting with VDOT, to incorporate any ideas or information from Offeror's Intellectual Property into: (a) the Design-Build Contract and the Project; (b) any other contract awarded in reference to the Project; or (c) any subsequent procurement by VDOT. In receiving all rights, title and interest in Offeror's Intellectual Property, VDOT is deemed to own all intellectual property rights, copyrights, patents, trade secrets, trademarks, and service marks in Offeror's Intellectual Property, and Offeror agrees that it shall, at the request of VDOT, execute all papers and perform all other acts that may be necessary to ensure that VDOT's rights, title and interest in Offeror's Intellectual Property are protected. The rights conferred herein to VDOT include, without limitation, VDOT's ability to use Offeror's Intellectual Property without the obligation to notify or seek permission from Offeror.

2. **Exclusions from Offeror's Intellectual Property.** Notwithstanding Section 1 above, it is understood and agreed that Offeror's Intellectual Property is not intended to include, and Offeror does not convey any rights to, the Escrow Proposal Documents submitted by Offeror in accordance with the RFP.

3. **Proposal Payment.** VDOT agrees to pay Offeror the lump sum amount of **Twenty-Five Thousand and 00/100 Dollars (\$25,000.00)** ("Proposal Payment"), which payment constitutes payment in full to Offeror for the conveyance of Offeror's Intellectual Property to VDOT in accordance with this Agreement. Payment of the Proposal Payment is conditioned upon: (a) Offeror's Proposal being, in the sole discretion of VDOT, responsive to the RFP; (b) Offeror complying with all other terms and conditions of this Agreement; and (c) either (i) Offeror is not awarded the Design-Build Contract, or (ii) VDOT cancels the procurement or decides not to award the Design-Build Contract to any Offeror.

4. **Payment Due Date.** Subject to the conditions set forth in this Agreement, VDOT will make payment of the Proposal Payment to the Offeror within forty-five (45) days after the later of: (a) notice from VDOT that it has awarded the Design-Build Contract to another Offeror; or (b) notice from VDOT that the procurement for the Project has been cancelled and that there will be no Contract Award.

5. **Effective Date of this Agreement.** The rights and obligations of VDOT and Offeror under this Agreement, including VDOT's ownership rights in Offeror's Intellectual Property, vests upon the date that Offeror's Proposal is submitted to VDOT. Notwithstanding the above, if Offeror's Proposal is determined by VDOT, in its sole discretion, to be nonresponsive to the RFP, then Offeror is deemed to have waived its right to obtain the Proposal Payment, and VDOT shall have no obligations under this Agreement.

6. **Indemnity.** Subject to the limitation contained below, Offeror shall, at its own expense, indemnify, protect and hold harmless VDOT and its agents, directors, officers, employees, representatives and contractors from all claims, costs, expenses, liabilities, demands, or suits at law or equity (“Claims”) of, by or in favor of or awarded to any third party arising in whole or in part from: (a) the negligence or wilful misconduct of Offeror or any of its agents, officers, employees, representatives or subcontractors; or (b) breach of any of Offeror’s obligations under this Agreement, including its representation and warranty under Section 8 hereof. This indemnity shall not apply with respect to any Claims caused by or resulting from the sole negligence or wilful misconduct of VDOT, or its agents, directors, officers, employees, representatives or contractors.

7. **Assignment.** Offeror shall not assign this Agreement, without VDOT's prior written consent, which consent may be given or withheld in VDOT’s sole discretion. Any assignment of this Agreement without such consent shall be null and void.

8. **Authority to Enter into this Agreement.** By executing this Agreement, Offeror specifically represents and warrants that it has the authority to convey to VDOT all rights, title, and interest in Offeror’s Intellectual Property, including, but not limited to, those any rights that might have been vested in team members, subcontractors, consultants or anyone else who may have contributed to the development of Offeror’s Intellectual Property, free and clear of all liens, claims and encumbrances.

9. **Miscellaneous.**

a. Offeror and VDOT agree that Offeror, its team members, and their respective employees are not agents of VDOT as a result of this Agreement.

b. Any capitalized term used herein but not otherwise defined shall have the meanings set forth in the RFP.

c. This Agreement, together with the RFP, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties hereto.

d. It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the Commonwealth of Virginia, validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.

e. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.

IN WITNESS WHEREOF, this Agreement has been executed and delivered as of the day and year first above written.

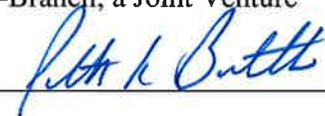
VIRGINIA DEPARTMENT OF TRANSPORTATION

By: _____

Name: _____

Title: _____

Corman-Branch, a Joint Venture

By:  _____

Name: Patrick K. Bartorillo _____

Title: President, Branch Civil, Inc. _____

Attachment 11.8.6 (a) and (b) | Certification Regarding Debarment Forms



ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-043-602

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	6/2/17	<u>President, Branch Civil, Inc.</u>
Signature	Date	Title

Corman-Branch, a Joint Venture
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-043-602

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

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d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	6/20/17	President
Signature	Date	Title

Corman Construction, Inc.
Name of Firm

ATTACHMENT 11.8.6(a)
CERTIFICATION REGARDING DEBARMENT
PRIMARY COVERED TRANSACTIONS

Project No.: 0064-043-602

1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; and have not been convicted of any violations of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1) b) of this certification; and

d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

Signature	Date	6/2/17	President
			Title

Branch Civil, Inc.
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-043-602

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	5/23/17	Vice-President
Signature	Date	Title

Whitman, Requardt, & Associates, LLP

Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-043-602

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	5/23/17	President
Signature	Date	Title

Seventh Point Transportation PR
Name of Firm

ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-043-602

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

May 23, 2017

Date

Vice President

Title

H&B Surveying and Mapping, LLC
Name of Firm

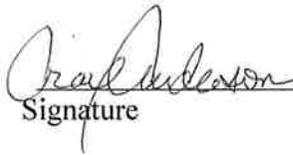
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-043-602

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.

	06/07/17	President
Signature	Date	Title

ERM & Associates
Name of Firm

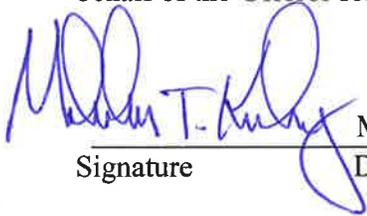
ATTACHMENT 11.8.6(b)
CERTIFICATION REGARDING DEBARMENT
LOWER TIER COVERED TRANSACTIONS

Project No.: 0064-043-602

- 1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

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The undersigned makes the foregoing statements to be filed with the proposal submitted on behalf of the Offeror for contracts to be let by the Commonwealth Transportation Board.



Signature

May 23, 2017
Date

President
Title

Malcolm T. Kerley, PE, President, NXL Construction Services, Inc
Name of Firm

